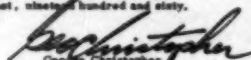


Proclamation

- WHEREAS,** The National Association of Educational Broadcasters will hold their 36th Annual Convention in San Francisco from October 18 to 21, 1960; and
- WHEREAS,** The NAEB maintains the highest standards of programming, featuring the world's most outstanding educators, artists, philosophers and statesmen; and
- WHEREAS,** This great wealth of intellectual talent, combined with the most modern techniques of television broadcasting, has made available to a vast and once an educational program structure without parallel elsewhere in the telecasting industry; and
- WHEREAS,** This educational concept of broadcasting fosters the ideals of the National Association of Educational Broadcasters by sharing material and programs among the educational stations of the United States; and
- WHEREAS,** We take pride in San Francisco's own educational television station K. Q. E. D., for its contribution to the vast wealth of constructive and informative programming;
- NOW, THEREFORE,** I, George Christopher, Mayor of the City and County of San Francisco, do hereby proclaim October 18-21, 1960 as "NATIONAL ASSOCIATION OF EDUCATIONAL BROADCASTERS' DAYS" in San Francisco, and officially welcome the delegates, their families and friends to San Francisco.

IN WITNESS WHEREOF I have hereunto set my hand and caused the seal of the City and County of San Francisco to be affixed this eighteenth day of August, nineteen hundred and sixty.


George Christopher
Mayor



**EDUCATIONAL
PRESS
ASSOCIATION
OF
AMERICA**

Cover: Dage Industrial Model 101 camera with zoom lens moves in on pupils engaged in group activities. Note children's complete disregard for camera and project coordinator's microphone. See story on page 23.

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Who Speaks for the Courageous?

While many criticisms may be leveled at our American system of broadcasting — where the bulk of programing is made possible through financial backing by large commercial concerns — perhaps one of the most serious, from the standpoint of the audience, is the matter of program control. Such control does not have to be direct dictation of content; there is the indirect pressure brought about by the difficulty of finding commercial backing for programs which conceivably might not be in the "best interests" of the sponsor, programs which might probe too deeply into embarrassing questions or which the sponsor feels might alienate portions of the buying public.

Therefore, it is refreshing, and certainly worthy of our notice, when a sponsor has the courage to back a program which is definitely controversial. Such was the case this past spring when *CBS Reports* devoted a program entitled "Who Speaks for the South?" to an analysis of the school integration problem. When Edward R. Murrow and Fred Friendly, producers of some of the better public affairs shows in recent years, announced the proposed

content of the program, one of the regular sponsors of the series indicated that it would be unable to participate, for rather obscure and indefinite reasons. Bell and Howell, the other sponsor, apparently believing that honesty and integrity should be placed above financial considerations, promptly announced its intention of continuing sponsorship.

The company insists it has no control over program content of *CBS Reports* and doesn't want any. A company spokesman admitted that the company had been warned to expect consumer resentment if it insisted on sponsoring the documentary, but, he said, "These are risks someone must take if television is to be permitted to grow up as a responsible reporting medium. We have faith in the wisdom and integrity of the American people. We think they will welcome an opportunity to observe fair treatment of both sides of controversial questions." Later, when informed of the large number of stations accepting the program, he said, "We're delighted that our confidence in the American public has been justified."

An attitude similar to Bell and Howell's was displayed by Purex,

sponsors of the recent controversial "Sacco-Vanzetti Case." In reply to charges that the program was distorted, inaccurate, and untruthful, Purex issued the following statement: "Purex recognizes that its non-censorship policy and the network's efforts to meet public demand for vital and more interesting programs at times leads to the presentation of material on which strong differences of opinion may exist. To avoid such subjects as program material simply because of these differing opinions would severely limit the scope of TV entertainment."

Educational broadcasters, while not alone, are perhaps often in the forefront in criticising commercial interests for their failure to present programs of real importance and value. It therefore behooves us to recognize, and indeed to salute, those sponsors who have the courage and the integrity to underwrite programs such as "Who Speaks for the South?" Only through the encouragement of truly significant programing can we hope to educate the American public about some of the basic issues facing our nation today. Financial support by commercial interests is essential to the continuance of documentaries such as *CBS Reports*, because the networks themselves

can afford to underwrite such programs only on a limited scale. And we need many more, not fewer, programs with real intrinsic value.

Networks and sponsors often defend the steady offering of Westerns and detective stories with the statement that they are "giving the public what it wants." As members of that public, it is time we snapped out of our lethargy and let them know what we *really* want. In no other way can we insure the continued presentation and (even more important financially) the continued sponsorship of programs which will honestly examine economic, social, and political problems facing our nation today. If we are to become better informed, we must let the sponsors and networks know that we want and appreciate good programing. We must no longer put off writing that letter that we all, at one time or another, have felt like writing: Both praise for the worthy and constructive criticism of the unworthy are essential. Those who bring us a steady diet of pap should know of our concern. Even more important, the sponsors with courage and integrity deserve our encouragement and support.

—HAROLD E. HILL

Listeners Lack Real Choices

The "quiz show" and "payola" scandals provided a field day for the critics of the broadcast media, especially television. Many used strong language about programs, especially the sameness of many television programs. Also, while they recognized the worthlessness of many programs, they were especially strong in their condemnation of the "westerns," the "crime programs," and other programs unsuitable for children and somewhat less than popular with discriminating adults.

These criticisms produced immediate response from representatives of the television industry. They referred to the spectaculars and many other high-quality programs which had been presented on television. And they pointed out that both television and radio in the United States have no other alternative than to serve the mass audience because each secures its entire support from advertising.

Some action has been taken already in an attempt to eliminate the flagrant and unethical abuses which the scandals revealed. Other action has been promised.

Before the public is lulled to sleep by the action taken and

promised to correct the revealed abuses, is it not fair to draw the attention of the broadcasters, the FCC, and the Congress to other serious problems which may be lost sight of unless strong demands are made now?

Why is it that on Saturday mornings and afternoons, when the more discriminating listeners, working wives as well as husbands, are at home, few programs of a worthwhile nature are telecast? Why is it that on Saturday afternoons in many areas everything seems to be baseball (or some other sport)? Why cannot the networks (and the local television stations) get together and so program their Saturdays as to provide something worthwhile for the discriminating viewer who does not care for sports or the other programs which presently predominate? Might not attention also be given to Sunday mornings (when the choice is between church services) and other times during the week when the only choice may be between one "western" or another or one "crime program" or another?

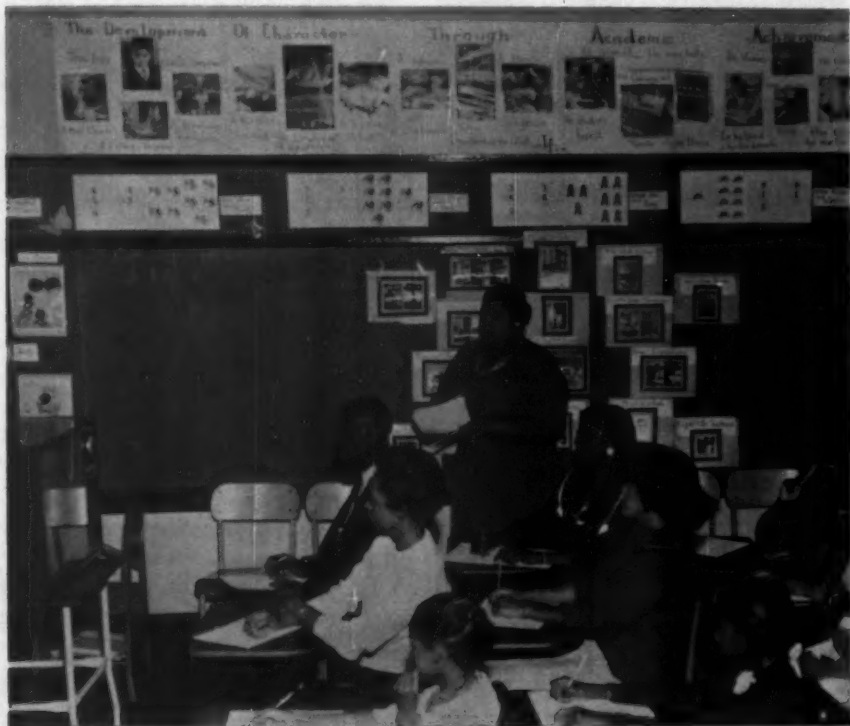
The industry strongly insists that it can regulate itself. Will it,

therefore, come up soon with a satisfactory answer to this critical problem? This writer hopes that it will. If not, he believes that the listeners eventually will demand that either the FCC take early, appropriate action or that the Congress pass new legislation to correct the present unbalanced situa-

tion. In the meantime should not all of us register with the stations, the networks, the FCC, and the Congress our dissatisfaction over the profusion of programs cut from the same cloth?

—TRACY F. TYLER, *Editor*

Mrs. Eloise Wright and the Council School ETV Committee monitor an ETV program in Mrs. Wright's classroom.



A Classroom Teacher Looks at ETV

... and tells of its utilization at her school

Except for the very dull student, pupils enjoy being exposed to ETV. It has been evident at my school that the degree of learning by the pupil depends on the interest, enthusiasm, initiative, and resourcefulness of the classroom teacher.

As ETV chairman in the school, I had to investigate first which teachers wanted to utilize ETV as a teaching aid. With eighteen interested instructors and three receivers in the school, a rotating location schedule was established and it was decided which class would monitor which telecourse.

Course selection was based on student needs, age, grade, and maturation levels.

Four responsible eighth-grade boys were assigned to transfer the receivers (mounted on cabinets with large casters) three times daily; in addition five teachers purchased their own classroom receivers.

By relying on study guides supplied by the ETV network, each teacher could adapt his daily lead-

into and follow-up of the telecourse. The importance of classroom activity after the TV presentation is that it helps the teacher

By Eloise S. Wright

A teacher of the fifth and sixth grades who utilizes every elementary Alabama ETV network telecourse within her classrooms at Councill school in Birmingham.

recognize whether or not the student is grasping the subject. Our follow-ups have included oral discussion, storytelling, letter writing, reading library books, word drills, scientific experiments, notebooks, posters, tests, dances, games, and a puppet theater with dolls made by the children.

Since young students have a quicker acceptance of education if their subjects are interwoven, we have had projects such as the incorporation of English into science

by having students write weekly letters on what they have learned or to ask questions of their TV science teacher.

Besides each instructor sending his weekly feedback comments (Figure 1) to the TV in-school producer, each maintained an evaluation record of monthly progress.

In our final report last May, sixteen of the eighteen teachers acknowledged definite advancement by children viewing educational telecourses as opposed to those who were non-viewers.

It has been interesting to note the "glamor" surrounding the ETV instructor. On several occasions when the youngsters were visited by their TV teacher, they

displayed emotions similar to those exhibited when meeting a local TV personality.

Even though our principal has given full endorsement, this article should not give the impression ETV is totally accepted by each teacher at our school. Some are naturally conservative; others believe they lack the vivid imagination necessary to capture the advantages of ETV.

At our school we believe ETV progress cannot be measured by how many TV receivers are in a school nor by how many times a particular teacher has a set turned on, but by the purposeful learning experiences stimulated by ETV and followed through by the classroom instructor.

Figure 1

CLASSROOM-TV TEACHER FEEDBACK TO THE STUDIO

Subject _____ Grade _____ School _____

Your name _____ Address _____

1. Do you have good _____ fair _____ or poor _____ TV reception?
 Comment _____

2. What interruptions, if any, disturbed the lesson? _____

3. Quantity of material covered:
 Too much _____ About right _____ Too little _____

4. Level (vocabulary, etc.):
 Too advanced _____ Too simple _____ About right _____

5. Quantity of visuals used:
 Too many _____ Too few _____ About right _____

6. Any suggestions for additional visuals? _____

7. Characteristics of television teacher:
 (a) Personal appearance: Good _____ Fair _____ Poor _____
 (b) Voice and diction: Good _____ Fair _____ Poor _____
 (c) Presentation: Enthusiastic _____ Pleasant _____ Fair _____
 (d) Rate: Too fast _____ Too Slow _____ About right _____
 (e) Mannerisms: _____

8. Questions by the class: _____

9. Comments and recommendations for improvement of program: _____

10. (a) The "feedback" should be sent in once a week.
 (b) A class committee can be helpful in preparing these data.
 (c) If pupils will write out questions, they can be clipped to this sheet and answered in later lessons by the TV teacher.

Teacher in the House

She says it's fun to pioneer in etv

"So you're teaching on television?
Do you actually like it?"

"Does it make you nervous to
teach on TV?"

"Only twenty minutes a day!
What a soft job!"

"Where ARE you going with
all that stuff?"

"Well, well! If it isn't the poor
man's Betty Furness!"

These are a random sample of
the greetings, remarks, and ques-
tions which have reached my ear
literally dozens of times each week
since I became a TV teacher. In
my own little sphere of television
the number one TV question,
"What is Jack Paar really like?"
has been replaced by "How do
you like teaching on TV?" and
"What is TV teaching *really* like?"

The answers I give will of neces-
sity reflect my personal biases and
feelings. To remove them would be
to wring the person from the
teacher and leave only such static
inanimate objects as chalk, grade
book, and pencil.

What is TV teaching really like?
My job began when I got a leave
of absence to attend a two-week
summer workshop to help plan the

TV curriculum. Teachers, princi-
pals, and consultants from Des
Moines and Polk County worked

By Mildred Ballou

*One of five full-time TV
teachers on KDPS-TV, Des
Moines [Iowa] Public Schools.*

tirelessly at developing curricula in
each of the subject areas to be
televised in the fall.

Consultants from other TV proj-
ects over the country were on hand
to tell us what had worked for
them, and to answer our numerous
questions. Out of that work session
came a teacher guide, stating the
over-all objectives of each course
and the title of each day's lesson
for the year.

The studio teacher's job then be-
came one of planning, perusing,
preparing, packing, pondering, and
presenting.

● Weekly telecast plans are developed, mimeographed, and sent to each participating teacher.

● Materials of all kinds are investigated and perused to determine which book, which part of which movie, which pictures, models, and procedures will best do the teaching job for that particular day.

A TV teacher is part scavenger. As I shop, play bridge at friends' homes, drive down the highway, my eyes roam constantly — searching always for visual materials.

● Next a script is prepared for the producer-director. The script indicates every movement and detail in the telecast, with camera directions for close-ups, long shots, etc. When pictures are shown, the teacher's cue words are written into the script so the man on camera will know exactly when to show what picture. Posters, charts, and flip cards are either ordered through the art department or prepared by the studio teacher.

Every person on the KDPS staff is most helpful—and perhaps more important, patient—doing an excellent job of making each telecast as technically perfect as possible, with limited staff and facilities. The producer-director and the studio teacher go over the script together.

● Next comes the packing step: I pack fish bowls, butterfly nets, killing jars, terrariums, live frogs, et al., from home, pond, and dime store to my car, up the stairs to the studio, and back, after the telecast, to the home, pond . . .

● Then follows the pondering step — getting the script firmly in

mind, because I use no notes, idiot cards, or teleprompter.

● Actual presentation is the smallest but most important part of the TV teacher's work. Visual materials, props, microphones, and cameras are checked. I remove the jingling bracelets I'm so fond of, add some brownish lipstick and a bit of eye make-up, spray down that persistent bit of hair that's out of line, and go under the lights to wait for the stand-by signal. Sometimes I feel a little sick — but there's no turning back.

The theme comes up, the eyes on our title card, "Look Around You," move back and forth, and we're on. I look directly at a camera, and the two red lights are the eyes of a ten-year-old who is counting on me to help unlock one of the secrets of the universe! It's Jimmy out at Hanawalt School or Ann at Johnston — and the day it becomes just a camera will be the day I leave the studio to once again see those faces before me in a classroom.

After the telecast one feels exhausted, but there's the studio to clean up, the mail to answer, tomorrow's script to prepare, and visual aids to chase down. Often I treat myself by going out to visit one of the classrooms using the telecast to see the follow-up activities and learn firsthand if the lesson was too tough, dead, too easy, or O. K.

How do I like being a studio teacher? In spite of the fact that I've never worked harder (I often

finish timing the telecast at 1:00 a.m.) I love it. I like the opportunity for detailed planning and research. I like being a pioneer in the new field of ETV; I like experimenting with new techniques; I like the opportunity for creativity (innovations are the rule, not the exception); I like working in a seminar-type situation with the other studio teachers.

Mostly, I like the feeling of satisfaction one gets when teachers and children report that the telecast provided information and stimulation resulting in a good student project in science.

Drawbacks? Of course there are. I should be less than honest if I failed to mention them: I miss the delightful humor of children; I would, some days, like to wear a white sparkly sweater and not care

whether or not my hair is curled; I would like to make my own mistakes in front of my own class instead of in front of 110 sharp elementary teachers, any V. I. P.'s who happen to be tuned in, plus mothers, and several thousand kids.

Our entire household has felt the impact of having a TV teacher in the house. If anything is missing, my boys look for it on one of the upcoming telecasts! My teacher-counselor husband's eyes twinkled last night as he said, "Why don't you pretend you're doing a commercial and bake us a cake?" And my son confided, "Mom, I think you could be a real star, if you could JUST get on a better show."

TV teaching is exciting, exhilarating, exacting, and exhausting. And I believe it's here to stay.

What Does It Take to Teach by TV?

Teacher new to TV suggests ways broadcasters can smooth path

Teaching by television! What an exciting and challenging thought! There I'd be, using a new medium

By Ginni Mock

An experienced classroom remedial and speeded reading teacher. Her first TV course was "Effective Reading," a series intended to improve the reading of adults, and primarily aimed at executives and professional people.

with a totally new type of class . . . no interruptions . . . no disrupting influences . . . just pure teaching! Would I try it? Of course!

And then came some second thoughts — especially as time went on and the job seemed to grow bigger and bigger. There had to be a manual for home practice, and I (with expert editorial help) was

to write it. There were many time-consuming (though valuable) consultations involving the teacher, the consultant in the subject-matter area (effective reading), the producer, and the assistant producer — who did most of the actual coordinating.

But I was to discover that those things were just the beginning. It was when I finally got to the studio to begin rehearsing that I realized what I had gotten into. Imagine yourself in this situation:

* * *

It is the first day of rehearsal. You have met the director once—over a cup of coffee—when the producer outlined briefly what was to be done. The director seemed distracted and disinterested, and after about ten minutes he left to answer the phone and never did return.

Today, as you enter, he is there and ready to go to work. The studio is the same one in which you auditioned, and so it is not altogether unfamiliar.

After waiting around for ten or fifteen minutes, a cameraman appears and much technical discussion ensues among director, producer, cameraman, and various other technicians. Glasses are a problem. Off??? Can't see? O. K., then, leave them on.

Finally, from some background speaker, the director announces that rehearsal is to begin. You start and talk for several minutes. Suddenly, voices you have heard in the background get louder and more angry, and you realize that no one is listening to you. Trouble, it appears, is occurring with the "visuals."

A half-hour or so goes by (or at least it seems that long) while you stand or half sit on a stool, waiting.

Then, "O. K., take it from where we stopped before," comes the sepulchral voice. You try to think back and begin again. While you are talking, a class wanders in, the teacher explaining apparatus to students. Suddenly, the lighting man comes up and adjusts the lights; then all lights go off. You stop. "Go on," comes the voice you have finally decided must be the director's.

So you go on until suddenly you see the director walking toward you saying, "That's all we have time for now. We'll go through the whole thing tonight before the actual shooting." And that is that!

(P. S. We never went completely through any lesson during any one rehearsal period, even though we had two rehearsals for each of them.)

* * *

It is not hard to imagine how lost I felt. Although I had rehearsed my half-hour lesson many times at home, I had no idea how it would fit in with the illustrative materials . . . or how it would seem to the director . . . or whether it would be too short (horrors!), too dull, or too long.

I had been told that a fifty-minute class could be taught in thirty minutes on television. Now, I could see that one could get fifty minutes' worth of *talk* on thirty minutes of TV, but was it fifty minutes' worth of *teaching*? I still hadn't a clue as to how to move, how to gesture, what I sounded like, or whether my ideas seemed clear. The only general statement I can recall the director making was that he did not like gimmicky educational productions (with which I agreed) and that he wanted to keep this "simple." He kept it so simple (with head-and-shoulders shots only) for the first lesson that someone called the station and wanted to know who the "bodyless wonder" was!

I had discovered that teaching through television for the first time is like being thrown into the water and told to swim. None of the familiar accompaniments to the job was there: no class, no classroom, no desk from which to operate, no blackboard, no other teachers with whom to discuss the work, no students to warn me when I was laboring a point — or to respond to attempts at humor. (Later, when a visiting dignitary told me to smile more, I wondered

just what sort of entertainer he thought I was!) None of the familiar surroundings that had always been present when I taught was there.

Instead, I was faced with an almost completely mechanistic setup: a faceless, mostly voiceless man behind the camera; other men (whom no one ever bothered to introduce) darting out now and then to adjust the microphone or the lights or fiddle with the background we had for the later lessons; a director who sat up in a booth and whose only connection with me was via that sepulchral voice which never said anything about my performance, one way or the other; some people working over the "visuals" and connected via earphones with the director, with whom there seemed to be constant interchange, one side of which I could hear.

All these people spoke in a technical language which meant virtually nothing to me. There seemed to exist between several of the technicians a constraint that was completely baffling to me. The hierarchy — although totally obscure — seemed omnipresent. Who *was* in charge? What was the director supposed to do? Why didn't he direct *me*? What was the producer's job? What exactly were my responsibilities? And why did everyone seem to resent the rehearsals that I considered absolutely essential?

On top of such operational questions came others: Suppose, by some miracle, the course was successful, *why* would it be so? Would

it be because of the teacher or because of a clever director? Because of suitable material well developed, or because of good technical production and effective television techniques? Because the right sort of people (those who worked and *wanted* to learn) took the course? How would it ever be possible to separate these elements? And what would be the reason for failure? Would it be the failure of any or all of these items . . . or because taking a course by TV in the home would be subject to all the distractions of home. . . and because the students would range in age and background from high school students to retired businessmen?

Mulling over these questions, I suddenly thought of the exposure I was going to have! I would be judged on my teaching abilities—on the basis of twelve half-hour programs—not on the daily give-and-take of the classroom over a period of a year. Moreover, I would be judged by mature adults who had not only certain prejudices against the type of thing I was trying to teach, but also pretty definite ideas of what a teacher should be like and how he should teach.

I had a tiger by the tail!

I have gone into all this at length because I feel that here lie the major difficulties for the teacher new to television. It is my firm conviction that the teacher cannot possibly do his best job unless he feels at home — not only with his surroundings, but also

with the development of the material, and with the people who work with him.

And so I would strongly make these suggestions:

- The director, the producer, the teacher, the consultants, the assistants, and, ideally, everyone connected with the production should have a clear understanding of what each one is to do and a willingness to operate to the best of his ability in this area. (I realize that I am saying essentially that the teacher and the television workers must have good morale.)

- The teacher, director, producer, and possibly other technical personnel should take as long as necessary — and I mean three, four, or ten hours, if need be — to come to a full understanding of:

1. What particular attributes of the teacher can best be utilized by the camera.

2. What suggestions the director can make from his knowledge that will best implement the spirit of the teacher, the subject matter to be presented, and the technical production.

3. What sort of implementation will be necessary to produce the show—

- a. Type and hour of rehearsals
- b. Major emphasis
- c. Kind of working plan
- d. Facilities available for making visuals, drawings, and any other sort of props

- There should be post-performance conferences between at least the teacher and director—during

which the director can make suggestions to the teacher and the teacher can voice complaints and congratulations. It would be helpful if the consultant could sit in on these also, to give the teacher some idea of how the material seems to be coming across.

- The teacher should meet *all* the people with whom he will work, especially the cameramen, and the *same* ones should work on rehearsals as on actual performances. (One of the most disconcerting events that occurred during my TV course was to have one cameraman for rehearsal and a different one show up for the actual presentation.) Close cooperation between cameraman and teacher and understanding of the teacher's movements on the part of the cameraman are essential to the best effects, I am convinced.

- People involved in the television and production side of the course should not feel under any obligation to learn about the subject matter. It is *not* their responsibility to learn about the subject; it is the function of the teacher to interpret to them how he feels his material can best be presented. (Some of my associates apologized continually for knowing so little about my field. When I had spent years studying it, I didn't expect to find "experts" on reading working with television!)

- The hierarchy should be explained fully and, if possible, be introduced to the teacher. (I was told that the man who headed the station was very pleased with my

work. Yet my only contact with the gentleman — whom I later discovered I had seen going in and out of the office — was a half-hour telephone conversation, during my time at another job, in which he listed words I had mispronounced during the television performances. This was needed help, but it would have been pleasant had he taken some of *his* time to meet me.)

I hope these suggestions do not sound like trivial complaints, because I do not feel that they are. It is impossible to expect the teacher to be a professional television performer or a completely confident person able to meet any sort of new situation, new language, and new type of classroom — without the utmost cooperation from the television staff, upon whose premises he is often led to believe he is trespassing.

Of course, the teacher, too, must be willing to learn . . . to adjust to strange situations and different sorts of people . . . to remember

at all times and at all costs that the best procedure is the one that best implements teaching and learning of the subject matter.

The director must be willing to learn from the teacher about his personality and how he *feels* his subject matter should be presented, at the same time bringing all the director's knowledge and skill to project the material in the most effective way possible.

Teacher and director must have respect and belief in each other — and conviction that the other knows *his* job and is concerned with doing *that* the best way possible.

Without these basic attitudes in constant action, I do not see how the experience can be anything but frustrating and disappointing for all concerned. With these attitudes — and with the proper technical efficiency from other members of the working unit — educational television can surely be a gainful experience for everyone involved.

From Classroom to TV Teaching

A biology teacher reveals her attitude toward the transfer

The contrast between classroom teaching and TV teaching is almost indescribable. In the "cloistered" classroom, as a teacher you are "head of the ship," so to speak — but in the TV studio you are surrounded by moving cameras with winking red lights and by floor directors and prop men moving visual aids, giving time warnings, turning floor and spotlights on and off. The instructor must place and hold visuals in position so the camera can be prefocused; cues must be watched to warn the projectionist of film inserts, etc.

My two years of television teaching may seem too brief a period for reaching conclusions that might shake the field of education. However, the newness of the television approach has stimulated efforts on my part to learn as much as possible in a short time.

My first reaction (which is a perfectly normal one, I've discovered) was to look with suspicion on a situation where I could not see the "whites of the students' eyes." After all, the response of the students is the springboard of

classroom teaching. But that response has been supplemented, for Alabama TV instructors do visit

By Mary Rogers

*A Monday-through-Thursday
9 a.m. high school biology in-
structor on the Alabama ETV
network.*

classrooms throughout the state where their telecourses are viewed, to talk personally with the students.

The actual course planning is based on the fact that material must be organized and simplified into clear outlines so that the students who take notes cannot miss the information. The assimilation of the material still depends on the student and the help he receives from further study with the classroom teacher. So the pupils have twice the opportunity to learn — even discounting the old cliché that "one picture is worth a thousand words."

A by-product that should not be overlooked in the television and classroom team-teaching is that the burden of learning is placed upon the student to a greater extent than is ordinarily found. Beyond high school, the ability to take notes can make college more meaningful. Assuming responsibility for learning adds to the maturity of the student and thereby creates the desired effect of individual research.

No special credit goes to the television teacher who has planned her work a semester ahead with detailed plans kept at least two weeks ahead of schedule. Most classroom biology teachers could do the same if they had time to do so. But they do not have time! Besides the teaching of several subjects, the non-teaching responsibilities pile up so that only a forty-eight-hour day would prove sufficient to accomplish all that is expected. The task of presenting biology as would the very best classroom teacher weighs heavily upon the television teacher.

Accessibility to materials not usually available in the average classroom has proven quite an advantage. The closeness of the Birmingham ETV studio to the University of Alabama Medical Center has proved invaluable — whether it means showing an appendix that has just been removed or a custom-made glass-blowing job from the biochemistry laboratory. Again, the time involved in collecting and the problem of "borrowing" exhibits would be impossible for the majority of biology teachers.

Of course the impressions made on the students as far as applying biology in their daily lives is the supreme motive in teaching. Nevertheless the sharing of ideas, projects, visuals — and even problems — by the classroom teachers who have cooperated in ETV ventures will inspire all who have participated to wish to keep science studies in one of the foremost places in the curriculum.

30 Seconds Not Enough

Author pleads for live educational radio network to aid coverage

Wherever we turn these days, we are constantly reminded that we are in the great democratic process of selecting the man who will be President of the United States for the next four years. It will be particularly interesting to note how often we are reminded that we are actually in the process of selecting the leader not only of our own country but of the free world for the next four years. Not many Americans may be aware of this fact, but certainly people of other countries are; for example, some of you may have noted the London newspaper which complained bitterly about our national political conventions, stating, in effect, that while Americans might be willing to involve themselves in such tomfoolery, people in other countries are disturbed at this apparently haphazard system of choosing candidates, one of whom may become president and, in turn, as the major determinant of free world policy and action, the spokesman for their countries.

Regardless of whether the British paper was correct about the nature of our political conventions, it

does emphasize the new role of the American presidency. In the final analysis, it is not just a new

By Hartford N. Gunn, Jr.

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role for the American presidency, but also for the American citizen, who is now called upon to select a leader not only for himself but for a substantial part of the world. Clearly, this places upon the citizen an enormous burden made nonetheless so by his possible unawareness of its existence. In view of this great responsibility, it seems only fitting that we ask ourselves some of the questions that others are asking about us.

How well prepared is the American citizen to make crucial decisions? Does he have sufficient

education? Does he have enough accurate information? Does he have access to the analysis and interpretation of specialists? Is he prepared to choose wisely and to act decisively?

Fortunately, or unfortunately, most high school and college graduates depend upon information supplied by our major communications media such as radio, television, newspapers, and magazines. Of these, radio and television have commanded the major share of attention. How effective have these media been in informing and educating the citizen?

Let us look at several recent events and areas of interest. If reporting is merely the coverage of events, then the American radio and television networks have performed some brilliant jobs of reporting. During Mr. Khrushchev's visit to the United States, Americans were treated to a plane-by-plane, band-by-band, cocktail-by-cocktail description of one of the most interesting and entertaining state visits of the century. Despite the tremendous amount of air time devoted to the trip, interpretation and analysis were almost completely lacking. A great opportunity was totally lost — an opportunity to use this visit as a springboard to place in perspective not just the Russian dictator but the Russian government, its method of operation, its achievements and its failures, the Russian people, and the country itself. With the attention of so many Americans focused on this event, what a shame that no one capitalized on it to provide

for American citizens a study in depth of the Soviet system.

Let us look at another area — if there are two cities in the world demanding the most accurate and complete interpretive reporting, they are Washington and Moscow. Granting the limited accessibility of Moscow for such reporting, certainly there can be no excuse for the type of daily reporting which emanates from our own national capital, Washington, D. C. On the program "The Press and the People," Eric Sevareid said: "I don't think that the normal daily fifteen-minute network television news programs are successful in terms of content or in giving people understanding. I don't think they ever can be. You'd be better off from fifteen minutes of radio, listening to somebody really giving it to you." At this point NBC news commentator Martin Agronsky added: "Let's be specific about it. CBS carries a fifteen-minute show, and ABC carries a fifteen-minute show. Now, in that fifteen minutes, actually how much does Washington get? At the outside, Washington gets two or three minutes. I defy anyone to cover Washington in two or three minutes."

Outside of the United States we find other examples of the lack of broad coverage and interpretation — the booming, bristling continent of Africa, where a new country seems to be born almost every month; yet no American radio or television network maintains a regular correspondent who is heard daily from that continent. Not long ago, a major American network

was enterprising enough to broadcast a BBC correspondent's report from the Congo Republic. He was given *thirty seconds* to explain what was happening. Latin America, too, is slighted in terms of coverage. While events pile up in Cuba, there is virtually no reporting from any of the other Latin-American capitals either on the actions of Cuba and their reactions to them, or on their own national affairs.

These are just a few examples (I am sure that you could suggest many more), but they do indicate the inadequacy of our present system. Clearly, then, we need a communications system that will and can educate our adults to world leadership.

Equally important with national and international understanding in the concept of a new communications system are the areas of job knowledge and cultural enrichment. In almost every phase of American livelihood, particularly among the professions — medicine, law, business, politics, education—the ever-increasing tempo of change is apparent, as is the resultant need to keep abreast of the latest information not only in one's own field of endeavor but in other fields as well. There is also a necessity to help the citizen to a richer life through greater access to culture—music, art, drama, literature — of our own and of other countries.

Another argument in favor of a new communications system has only recently begun to emerge, and that is the need to speed communication within and among the

faculties of our educational institutions. As with other professional people, it is important in these times that educators and specialists constantly update and increase their knowledge in their own fields. It seems strange that often we must wait six months to a year for the publication of a scientific paper when an entire conference could be made immediately available to faculty members and experts throughout entire regions by means of a radio network. Educational communication also should be brought to bear on the split between scientists and humanists.

Among others, then, the goals for a new communications system should be: to educate the United States citizen to world leadership, to increase the knowledge and effectiveness of the citizen in his job, to enrich his life, and to perform a special service for education itself.

FAIL TO PERFORM

I don't think it is necessary to labor the point about the failure of our existing systems to perform these services. There simply is not enough being done in enough areas to be satisfactory in the world of today. Further, neither the goals nor the methods of these systems are designed to meet this demand. It is clear that these functions should be performed by some sort of broadcasting system whose primary function is *education*, in both the broad and narrow sense of the word.

One of the first suggestions might be to make use of educational television and, indeed, educational television can and should perform a substantial service in the attainment of these goals. It is well to remember, however, that educational *television* is usually more difficult and more expensive to use than educational *radio*. Briefly, then, let us compare the two media.

As we all know, ETV is extremely costly to produce, is often cumbersome and generally lacking in flexibility. Educational radio is relatively inexpensive and has easier and perhaps more frequent access to educational and informational sources. There are relatively few ETV stations as compared with educational radio stations, which are easier to build and to operate. Many of the available television channels are UHF and cannot be received without adapters; thus, they have rather small audiences. For example, while better than 50 per cent of the homes in Washington, D. C., the nation's capital, have FM receivers, there are not more than a handful of UHF receivers that might pick up a future ETV station in Washington. And in comparing radio and television, the interconnection of stations—which is the heart of an adequate communications system—is extremely difficult and costly in ETV.

These comparisons make clear the many advantages of *radio* as the broadcasting system with which it might be possible to provide the new communi-

cations system which modern America demands. However, the *individual* educational station cannot effect this task alone, for it cannot furnish in depth the educational talent and resources required. It is necessary to have *diverse* views, to hear from not one but *several* faculties, from a *number* of regions and countries, and to hear from not only academicians but also from *non-academic* people such as government officials in Washington, business leaders in New York or Chicago, industrialists in Detroit or Columbus, and diplomats in the United Nations. All of these talents and resources must be combined and integrated to form the program structure we seek. In brief, we must combine and integrate *individual* educational radio stations. Thus we come to the possibility of the live, interconnected educational radio *network* as the most effective means of satisfying the needs for a new communications system within the United States.

But why should the network be live rather than on tape? As one Ford Foundation official asked me the other day, "Isn't most of your material in educational broadcasting timeless?" I had to admit that, yes, a large part of it is timeless, not always by desire but frequently by necessity of tape network distribution. Slow distribution has made it almost impossible to deal adequately with the increasing tempo of national and world events, thereby crippling educational broadcasting in one of the areas where it is most needed.

But, the live, interconnected network has other values besides its ability to deal with the timely, the immediate, and the urgent. It could and should provide *more* programs than a tape distribution system can. It should, in fact, provide a *complete* schedule of eighteen hours every day which member stations can accept or reject. And, because it can provide so many programs with ease, flexibility, and relative economy, the network should enable stations to reduce their local program production and to concentrate on a few outstanding programs — better programs not only for the network, but for individual local needs as well. As a by-product of the full network schedule, there may be encouraged the development of *new* stations by those institutions which previously have been frightened by the prospect of providing a complete program schedule by themselves.

PSYCHOLOGICAL EFFECT IMPORTANT

There is another reason for a live, interconnected radio network. It is the *psychological* effect. This effect, I think, can be shown by the greater interest of the audience. It may be due to better programming, or due to publicity which becomes possible for the first time with simultaneous distribution, or possibly due to an intangible sense that programs are being heard simultaneously throughout a region or throughout the country. I know that this effect can be felt by our educational institutions and faculties. Again, there is that intangible

difference to a faculty member between the preparation of a program to be heard immediately by a great number of people and colleagues throughout a wide area — versus being heard sometime during the next six months to a year on one station at a time. Indeed, it is unsettling, particularly to a political scientist — for that matter to any scientist — to realize that his words via slow tape distribution may confront him in some large metropolis six to nine months from now. There is no question in my mind that a live network creates excitement, anticipation, and greater interest for the audience, and for our faculties and institutions.

But I can't help thinking that the greatest effect of all may be upon ourselves, the station managers in such a network. The network will force us to do cooperative thinking and planning concerning the presentation of programs and the use of talent and facilities. This new interaction, coupled with some of the same excitement which our faculty and institutions feel, may result in our coming up with new and better programming and it may indeed result in our thinking and planning in a far greater dimension than we do today.

Let me come back for a moment to the audience, or more correctly, audiences, of such a live educational radio network — for in the final analysis, they are the reason for the existence of such a communications system. We have long known that the audience for our

individual educational stations has consisted to a very great extent of the leaders in almost every area of endeavor. Research has proven to many of us that one of the most important things distinguishing our audience from that of any other media is the unusually high proportion of community leaders, scholars, professionals, etc. Let us capitalize on this fact in the development of our live educational radio network. Let us frankly cater to this audience, for it has, in fact, the greatest immediate influence in the world today, both nationally and internationally. It is an audience almost totally unserved by other mass media. This network should provide a unique service in depth, with emphasis on analysis and interpretation of background information, with creative cultural programming, and with specific programs for businessmen, lawyers, doctors, educators. This audience of leaders in every field is the audience which we are best equipped to serve and which needs most the service that we alone can provide.

Well, how far along are we in our network thinking?

There are two parallel movements in the direction of live, interconnected educational radio networks. One is along the eastern seacoast stretching from Montreal to Chapel Hill, North Carolina—an area with a potential audience of over 45 million people. It is expected that the central New England segment will be fully completed this fall. Progress is already

under way to establish new stations to interconnect this northeastern group with existing stations in New York, Philadelphia, Richmond and Norfolk, Virginia, and Chapel Hill, North Carolina, as well as with the Canadians through Montreal. The other network under consideration is the midwestern round-robin system designed by Carl Menzer, and utilizing many fine existing stations, to serve Illinois, Iowa, Minnesota, Wisconsin, Michigan, Ohio, Indiana, Missouri, and eventually virtually the entire midwestern U. S.

These two proposed network systems are not far apart from each other.

If these two regional networks can be successfully established, there is no question of the possibility of interconnecting within a few years a network stretching from Canada to North Carolina, and from the east coast to beyond the Mississippi. One can only speculate that if such a network were created, it might well be possible to stimulate interest in and a desire for a national coast-to-coast and border-to-border educational radio network.

The need for such a system has been clearly demonstrated. It remains to be seen, however, whether we have the imagination and the capacity to devise the mechanism and to create the programming by which the needs of modern America shall be met.

Dual Channel TV Aids Classroom Observation

Author tells advantages and problems

For a number of summers the elementary education department of Pennsylvania State University has sponsored a special six-week school session in order to offer teachers and prospective teachers the opportunity to study current teaching techniques and children's classroom behavior. In the past, these summer classroom workshop sessions were observed directly: Groups of teachers and college students majoring in education would observe the children from the classroom itself. As these groups increased in number each year, it became progressively more cumbersome to handle the observers as well as being obviously distracting to the children. It was thought that closed-circuit television might prove to be a solution.

The first session in which television was to participate was scheduled to cover a six-week period from June 29 to August 7, 1959. The classes were to meet at the Corl Street School, a modern,

one-story building located in State College, near the university campus. Four classrooms, each to contain from sixteen to twenty pupils,

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were selected for each morning session which generally lasted from 8 a.m. to 12 noon. One classroom would handle kindergarten-age children; a second, those 6 and 7 years old (1st and 2nd grades); a third, those 8 and 9 years old (3rd and 4th grades); and the fourth, ages 10 to 12 (5th and 6th grades). Each room had its own regular

teacher. This general plan was ultimately adopted when television was introduced into the classrooms.

As mentioned previously, the numbers of teachers and student observers who had viewed these classes during the prior summers had increased to a point where their disposition within the classrooms themselves had become a problem. With fifteen or twenty adults standing in the classroom each day, the resulting distraction to the children and teachers could hardly produce the ideal environment or natural behavior. It was hoped that by replacing a large group of adult viewers with a minimum amount of TV equipment, this element of distraction could be reduced appreciably. Furthermore, the elementary education department was interested in noting the advantages and disadvantages of closed-circuit television as a tool or aid in training elementary school teachers.

PHYSICAL FACILITIES AND TV EQUIPMENT USED

Because it was tentatively planned to televise a different class each day, at least during the first week, four adjacent classrooms at Corl School were designated as "originating rooms." Each room was of approximately the same dimensions and of comparable physical layout. Two other rooms, located down the hall from the originating rooms, were chosen for viewing purposes, and were consequently referred to as "viewing rooms."

One of these was quite large, having been used as an auditorium and dining area during the regular school year.

The use of a second, considerably smaller, viewing room was prompted by the need for a place where small groups of observers could freely discuss what they were seeing without disturbing the larger viewing group. Four 24-inch television receivers were set up in the large viewing room (two at each end of the room), and two receivers of like size were placed in the smaller viewing room. The connecting coaxial cables between originating and viewing rooms were strung along the main hallway and attached, in a temporary manner, on the wall molding near the ceiling.

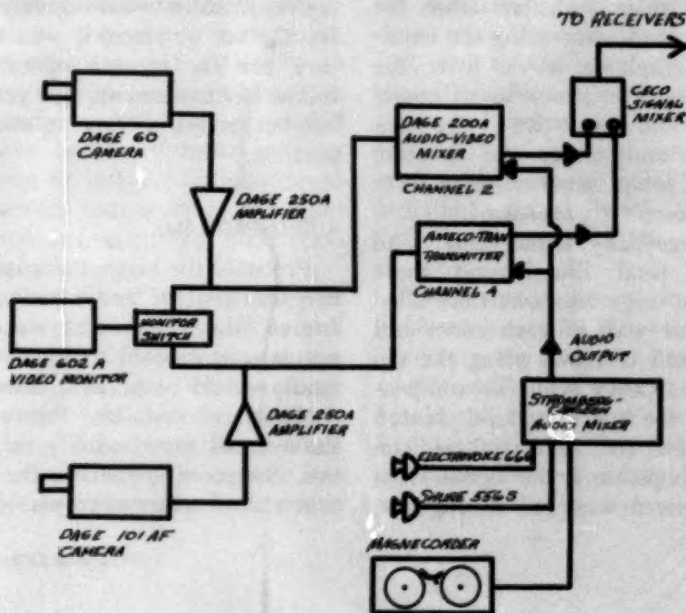
It was desirable from the standpoint of the teacher and class to avoid the bright artificial lighting normally used in a television studio situation. Aside from a small amount of light provided by minimal fluorescent ceiling fixtures, the originating rooms were illuminated entirely by the natural light provided by the large floor-to-ceiling windows, plus a row of windows along the top of the opposite wall. Translucent drapes could be drawn to reduce the glare on sunny days. An average lighting level of 32 to 64 foot-candles was obtained, depending on the brightness of the day.

To give the viewers maximum coverage from all parts of the originating room, two complete camera chains were established: a Dage Industrial Model 60 and a Dage

Industrial Model 101. Each was fed by a separate cable through separate amplifiers and audio-video mixers to a pair of monitors in the viewing rooms. One carried at all times an over-all general view of the room and its occupants; the other gave close-ups of various activities. The Dage 60 camera was equipped with a wide-angle (15-mm) lens and was mounted on a stationary stand in one corner of the originating room. This camera provided the necessary orientation. The other camera was mounted on a tripod and mobile dolly and was originally equipped with a complement of three lenses of varying lengths: a 1-inch for wide shots, a 2-inch for medium shots and a 4-inch for close-ups. These lenses were later removed when it was evident that the changing of lenses from one to another was distracting. Subsequently, a Pan-Cinor zoom lens was mounted on this camera and proved successful in

providing continuous coverage from long-shot to close-up. The zoom lens also reduced the amount of camera movement necessary to pick up the various shots. This lens had an opening of f2.5 and could be varied in focal length from 17 to 70mm.

All of the equipment — the voltage regulator, the A-V mixers, the amplifiers, and the audio controls — was mounted in a mobile rack which facilitated the moving of equipment between each of the four originating rooms. The rack also contained a tape recorder that was used to set audio levels and to provide music in the viewing rooms when the actual telecast was not in progress. A Dage 14-inch monitor was placed on top of this portable rack to allow the engineer to view either channel. All the necessary cables were strung along the floor next to the wall and were kept out of the way as much as possible.



The fact that audio pickup would be a major problem was realized at the outset of the project. Initially, two microphones were employed in the originating room: a Shure 556-S mounted on a stand at one end of the room, and a hand-held Electro-Voice 666. The Shure microphone was to be used for general, over-all sound pickup, while the hand-held microphone would be carried by a "project coordinator" (a professional teacher) who would walk from one group of children to another and thus pick out specific conversations. At their request, the classroom teachers were not given microphones to wear or carry at any time during the experiment. As the program got under way, it was found that the general noise level in a room full of youngsters of elementary school age was so high as to warrant keeping the stand microphone turned down altogether. This microphone was then kept in readiness for those occasions when the project coordinator using the hand-held microphone would leave the classroom. The problems of sound pickup and acoustics were numerous, and under the existing physical setup, some of these were never completely resolved.

As previously noted, almost all of the total illumination came from the large windows that filled all of one wall of each room and from small windows along the top of each opposite wall. To compensate for the low light level on dull days (low for industrial vidicon television pickup), the signal from each camera was fed through an

amplifier to boost the signal strength. This proved successful in providing the viewing rooms with a sharp, clear picture. On exceptionally dark mornings, the contrast level was relatively low, as might be expected; but at no time did the viewers complain of resulting poor picture quality.

As to the number of personnel involved daily, it was generally agreed that an engineer and a camera operator, along with the professional teacher as a coordinator, were capable of maintaining the operation. Because this coordinator was best acquainted with the interest of the observing groups, she could shrewdly and successfully direct the camera to specific groups of children as they acted and reacted under the regular classroom teacher's instructions. At the same time, she and her hand-held microphone soon became an integral part of the classroom scene, as far as the pupils were concerned. As the coordinator would quietly walk from place to place, it was necessary for the camera operator to follow her movements and yet keep her out of the picture as much as possible.

AUDIO PROBLEMS

Probably the biggest single problem was that of audio pickup. Of course, the classrooms were not acoustically treated as a television studio would be or as a classroom probably should be; henceforth, the over-all sound quality reflected this. But more important, the question of how many microphones and

where to put them in a room with sixteen or twenty children was paramount. At first, a lavalier or chest microphone was worn by the project coordinator as she walked about the room. This was, of course, an obvious effort to conceal the presence of a microphone as much as possible, but because of the relative insensitivity of this type of microphone at longer ranges, the Electro-voice 666 was chosen as its replacement and was held in the hand.

During the first week of the project, the greatest number of complaints regarding sound pick-up concerned the high level of distracting background noises coming from the originating room. As the children broke into smaller groups to pursue individual projects, the noise from two small boys with a large saw and piece of wood was often all that could be heard in the viewing rooms, despite the fact that the microphones were placed at the other end of the room. Elimination of the stand microphone helped alleviate this difficulty to a large degree, but only after the classroom teacher was persuaded to move her more noisy projects outdoors or into the hallway could the viewers hear some of the more subdued conversations and vocal reactions.

Another facet of this over-all audio coverage was this: Who and what should the camera and microphone pick up? With a large number of children working or playing — either together, in small groups, or alone — it became impossible to follow all of the action

in every instance. The best solution seemed to call for close coordination between camera operator and the project coordinator (and her microphone). If the latter thought the conversation or activity of a particular group of children would be sustained or might be of particular interest to a certain segment of the observers, she would merely nod her head to indicate to the cameraman that she was going in a certain direction and the camera would follow.

VIDEO PROBLEMS

To avoid many simple problems pertaining to camera coverage, the camera operator developed some basic "do's" and "don'ts"; the observers wanted to watch the children and their reactions to the teacher as much as possible. For instance, if one child in a group showed a pet turtle, one shot of the turtle was sufficient; the viewers wanted to see how the children acted in relation to the object and to the other children in the group. A lead for good camera coverage seemed to be to watch for signs of loss of interest in what should be the focal point of attention, and to catch the comparative interests of the girls and the boys.

What the observers in such a situation generally did *not* want to see were the teacher (unless she was demonstrating something which would call for at least one shot of her actions and the project coordinator or her microphone. It was generally understood that

there were to be occasions when it was necessary to show these people or the microphone, but as a rule the observers themselves cautioned the production staff against favoring these kinds of shots as much as possible.

It is generally understood that there are inherent differences in picture quality between the two industrial model cameras employed in this project. The Dage 60 camera will produce a video signal possessing somewhat less clarity, sharpness, and contrast than the larger, more sensitive Dage 101. This difference was further emphasized when a wide-angle lens was placed on the 60 model; however, the definite advantages of having available at all times a general orientation shot overshadowed the slight loss of video quality.

As mentioned before, on cloudy days the picture was not as good on the viewing room monitors as on bright days. Nevertheless, with both viewing rooms darkened, there were very few complaints regarding picture quality, even on cloudy mornings — primarily due to the "assistance" lent by the amplifiers.

It might be well to mention, in addition, one other problem. Because of the high amount of video overload on the Dage 60 camera (necessary to produce sufficient contrast), it was noted that when any person wearing extremely light clothing passed close to the front of the wide-angle lens, the picture would "roll," or lose vertical synchronization, for an instant or two. As soon as the bright object would

pass, the picture on the monitors would steady down.

It was generally agreed, despite these few problems, that the overall picture quality on the viewing room monitors could be described as good.

As might be expected, the camera operator necessarily had to be selective in his coverage of a large class of school children. In determining what he (and the coordinator with her microphone) should pick up, certain questions arose. For example, when there was one child in the class who, by his or her behavior, seemed to be the natural center of attention — an extreme extrovert, very camera conscious, somewhat radical in his or her responses to the teacher—how often should the camera follow this youngster? By this child's very actions it would seem that he or she would provide more interest for the observers. Yet the camera and microphone must not ignore the rest of the class. To meet this problem, the best solution seemed to be one of two practices:

- To watch the teacher. If she paid particular attention to this child or responded to questions or activities on certain occasions, then in those instances it was best to follow the action with sound and picture. Also, along this same line, if and when the project coordinator walked over to this child, of course the camera operator would follow.

- If in the course of a random pan around the room it was noticed that this particular child was doing something unusual or

something not in line with the activities of the rest of the class, the camera would do well to stay with this action.

CHILDREN FASCINATED BY TV

Because of technical difficulties, the camera operator in this project did not have a camera-mounted viewfinder. Instead, a standard 24-inch monitor was placed in a corner of the originating room to provide the operator with a continuing picture from the 101 camera. As might be expected, this monitor was to prove a source of fascination for the children in the room. After much experimenting with different positions for this monitor, an ideal location was finally discovered — a point where the children could no longer see themselves but where the cameraman could still view his picture. The relatively stationary placement of this monitor necessitated a somewhat restricted field of movement for this camera; however, this restriction proved to be no problem when the multiple lenses were replaced with the single Pan-Cinor zoom lens.

When a somewhat complicated system such as television moves into the elementary classroom, the effect that all this fascinating equipment will have on young and very curious eyes must be seriously considered. The ultimate aim in setting up this closed-circuit TV project was to eliminate as much distraction as possible in the classroom and to provide the observer with an environment that most

closely resembled the normal classroom situation.

It became readily apparent to teachers, sponsoring group, and television personnel alike that the best way to cope with the insatiable curiosity of the children regarding the cameras and the lenses and the monitors was to let them find out all they could concerning the operation. Consequently, on the first day of the experiment, the four classes were grouped together in one room, along with the TV equipment, and a general explanation, question-and-answer session was held. This period was immediately followed by an organized procession of youngsters who were allowed to look at the equipment close up and see themselves (by looking at the monitor) as they would appear "on television." Thereafter, they were all told that they could ask the teacher (or the camera operator during recess period) any questions concerning the equipment's operation. After the first week or so of the experiment, when each class had experienced at least one entire morning with TV in the room, the children's general acceptance of the equipment and personnel was readily noticeable. Furthermore, as the project progressed and the cameras, etc., remained in one room for a full week, the children's attention again became focused on the teacher or on their own activities rather than on the equipment. Also, along these same lines, it was soon discovered that the children in the room became more aware of the coordinator — as she moved from one part

of the room to the other — than they were of the cameras. And as she mingled with the students and seemed to become a part of their activities, the children associated or identified themselves with her, almost in complete ignorance of the ever-present microphone and cameras.

On a few occasions attempts were made to follow (with camera predominantly) the activities of one particular child throughout an entire morning's session, in order to provide the viewers with an individual case study. At these times, the teacher would provide the observers with a resumé of the background of the particular child, and the camera operator would be alerted as to which child of the group was to be followed. The first attempt progressed satisfactorily until a particularly observant child noticed that the "subject" for the day (an eight-year-old girl) had appeared on the classroom monitor more often than any other, and so informed her. When the experiment was attempted again at a later date, the classroom monitor was turned away from the children's view and the cameraman so placed that he could see the picture and still "stay with" the subject. This technique proved quite successful.

CCTV ADVANTAGES

By working closely with almost all phases of this project and through subsequent discussions concerning the feasibility of a closed-circuit experiment, certain advantages of

television became readily apparent. These were as follows:

- A simple television system operates at comparatively low cost with a minimum of equipment and facilities. Under similar conditions almost any classroom could be adapted for this type of observation.
- Television allows large observing groups with little or no distraction to the teacher and class. The classes quickly accepted, and often ignored, the television equipment.
- Television can be adapted to classroom situations, thus avoiding typical studio "programing." The teacher could conduct her class in the normal way.
- Dual television channels allow observers to retain orientation and at the same time view specific groups and activities in close-up. It was possible to follow one child's activities throughout the day without his or her apparent awareness.
- Television observation, unlike direct observation, provides large numbers of viewers with close-ups of essential details, such as words being read from a book, a drawing being studied by a group of children, or various materials being used by a child at work.
- Remote observation provides the opportunity for spontaneous, on-the-spot discussions of what is being viewed. In direct viewing, valuable ideas are often "lost" when observers must wait until a later time to discuss teacher techniques or pupil reactions.

DIFFICULTIES

As with any experiment, certain difficulties arose — some of them peculiar only to this project — which can be grouped as follows:

- Due to low light level conditions, especially on days with little or no sunlight, camera amplifiers were necessary to raise the video levels for satisfactory viewing. Higher levels of classroom illumination (say 64 foot-candles) from adequate fluorescent lighting units would greatly improve the picture quality.
- Under existing conditions, there was not enough power available to supply a satisfactory viewfinder picture. Consequently, a 24-inch monitor was placed in one corner of the room for the benefit of the camera operator. The presence of this monitor proved to be both a distraction to the students and an awkward working situation for the camera operator. A camera with an adequate built-in viewfinder is most desirable.
- Absence of acoustical treatment in originating rooms, together with a high level of room noise produced a serious audio problem. Because of the necessarily sensitive microphone used, background noises often interfered with specific conversations. Proper acoustical treatment of classrooms would help considerably. This should include acoustical tile on ceilings, and possibly a "soft" floor covering.
- General high level of room noise made it difficult, if not impossible, at times for the camera operator to hear the project coordinator and

thereby discern proper video pick-up. This situation could be rectified simply by providing the camera operator with a head-set carrying the audio.

VIEWERS REACT

By means of questionnaires passed out to observing groups, the elementary education department at Penn State was able to make a rather extensive evaluation of the types of viewers present during the six-week period and an analysis of these observers' reactions. The department was able to determine that:

- There were primarily two types of viewers — a generally interested public who attended once or twice and who had little or no knowledge as to the purpose or aims of the experiment, and persons directly or indirectly involved in elementary education with specific knowledge as to past results of the project.
- Of the total of approximately 1,000 viewers, about 60 per cent raised an objection to having certain details, projects, or concepts selected for them. They would have preferred being able to see everything and concentrate on observing only those areas directly interesting to them.
- Approximately 80 per cent of those viewers who had little or no knowledge of or connection with education expressed a generally negative reaction toward the experiment.
- Nearly 100 per cent of those viewers who knew something about

the experiment and attended the sessions more than once expressed positive reaction.

● The most positive reactions were expressed by those groups of observers who had observed the greatest number of times and who had had some previous direct observation.

The desirable advantage of being able to view and discuss children's activities as they react to advanced teaching methods without interfering or distracting the class made this experiment a success in the

opinion of the department of elementary education at Penn State, and of the observing teachers—and is the basis for a proposed second project for the summer of 1960. The value of such a remote viewing device can be further enhanced if and when such a project can be conducted under more adequate acoustical and lighting conditions and with the employment of more advanced television equipment, such as the Dage ETS-1 system using the Model 320 Vidicon Cameras.

Dr. John F. Baxter (left), national teacher of the **Continental Classroom** course in "Modern Chemistry," consults with laboratory assistant, Carl Spear, and the director, Marvin Einhorn. Because of the crowded office-laboratory, crystal structure models of everything from salt to ice were hung from the ceiling.



Continental Classroom: Progress Report

Program enters its third year with new format

In a grim postscript to Sputnik early in 1958, President Eisenhower said, "National security requires that prompt action be taken to improve and expand the teaching of science."

Only one high school student in four was studying physics; only one in three, chemistry. Since 1950, the number of qualified high school science teachers had dropped an alarming 53 per cent.

In an attempt to remedy the situation — specifically, to provide teachers across the nation with an opportunity to improve and update their knowledge of science — the American Association of Colleges for Teacher Education and NBC conceived of a course for college credit in "Atomic Age Physics." This network educational program went on the air October 6, 1958. It attracted so much favorable comment and produced such constructive results that it was repeated last year. In addition, the AACTE and NBC, with the American Chemical Society, last year sponsored a new course: "Modern Chemistry," in color. This will be repeated over

the NBC network beginning September 26, from 6:00 a.m. to 6:30 a.m.

By Hope Chamberlin

*Director of public relations,
Continental Classroom.*

The new 1960-61 course, to be broadcast at 6:30 a.m. beginning September 26, is "Contemporary Mathematics." The first semester will be devoted to "Modern Algebra," the second to "Probability and Statistics." Dr. George B. Kistia-
kowsky, special assistant to President Eisenhower for science and technology, in introducing the first program, will call attention to the national need for mathematical man power. He will point out that a critical demand for adequately prepared mathematics teachers currently exists, and he will also explain the need for scientific literacy.

To encourage credit enrollment, a new format for *Continental Classroom* has been created. "Modern Algebra" will be divided into two sections. College and university students seeking undergraduate credit will be required to view the lessons telecast on Monday, Wednesday, and Friday. Teachers and others enrolled for graduate credit will be required to view the telecasts five days a week. The additional TV sessions on Tuesday and Thursday will be devoted to the teaching of modern algebra in secondary schools.

Dr. John L. Kelley, head of the mathematics department at the University of California, Berkeley, will be the national teacher of "Modern Algebra." Dr. Frederick Mosteller of Harvard University will teach "Probability and Statistics." The teacher-education programs of each course will be conducted by Dr. Julius H. Hlavaty of DeWitt Clinton High School, New York City, and Professor Paul C. Clifford of Montclair (New Jersey) State College. Co-sponsors of "Contemporary Mathematics" are the Conference Board of the Mathematical Sciences, the Learning Resources Institute, and NBC.

No other educational TV venture to date has received, in kind or amount, the praise which has been bestowed on *Continental Classroom*. Dr. James R. Killian, Jr., former special science advisor to the President, has called it "truly a bold educational experiment in the nation's interest." And Arthur S. Fleming, Secretary of Health, Education and Welfare, has said:

"This is a significant development, both for the immediate contribution it makes to American education and for the larger possibilities it suggests for the use of television as an effective educational medium."

Since its inception, interest in *Continental Classroom* has far exceeded expectations. Last year there was a known audience of approximately 500,000 viewers daily. In addition to teachers, persons from nearly all walks of life — military personnel, technicians, engineers, college students, gifted high school pupils, handicapped persons, ministers, penitentiary inmates and others — rose early five mornings a week to update themselves in physics and chemistry. Of the 40,000 teachers following the course, 3,000 were enrolled for credit at one of over 200 participating colleges and universities.

As a result of interviews conducted throughout the country with teachers who viewed "Atomic Age Physics" the first year, it is apparent that *Continental Classroom* is a real ETV success. More than 80 per cent reported that, as a result of following the course, they plan to introduce new and better demonstration techniques in their own classrooms. Over 50 per cent indicated that, as a result of having acquired new knowledge in physics, they intend to introduce new concepts to their students.

Dr. Harvey E. White, vice chairman of the physics department at the University of California, Berkeley, was the national teacher of

the 160 half-hour lecture-demonstrations in physics. Dr. John F. Baxter, head of the general chemistry division at the University of Florida, Gainesville, taught "Modern Chemistry." Both agree that, while there are some minor disadvantages connected with teaching by television, the positive values far outweigh the negative aspects.

Guest lecturers, including many Nobel Prize winners, assisted Drs. White and Baxter in the almost herculean task of presenting to the nation two semesters of concentrated subject matter. Although some were primarily research scientists, the majority were professors at colleges and universities. Both teachers also had the help, in planning the courses, of advisory committees composed of outstanding physicists and chemists.

IDEA ORIGINATES

The story behind *Continental Classroom* — how it was conceived and developed — is an example of the manner national communication resources can be enlisted to meet a national need. It is also an example of how foundations and industry can contribute financial resources to nurture this need. And last, but not least, it is an example of the role a professional educational organization can play in a cast comprised of broadcasters, industry, and educators.

The idea for *Continental Classroom* originated with officials of the National Broadcasting Company. The plan for implementing the idea was contributed by the

television committee of the American Association of Colleges for Teacher Education. Financial backing was provided by the Ford Foundation, the Fund for the Advancement of Education, and ten leading corporations.¹

Colleges and universities offering credit for this televised course represent a cross section of American higher education. While the majority are state-supported institutions, there are many church-affiliated, private and municipal colleges or universities.

Participating institutions have local autonomy in implementing the course. They may utilize the network program at no cost and may charge regular tuition fees. Examinations are prepared by the national teachers, but a college or university may substitute tests of its own. Although the teachers cover the content they would normally include in a sequence of two 4-semester-hour courses, most colleges are offering 3 hours of credit. The majority are also requiring weekly or biweekly two-hour or three-hour on-campus seminars.

One of the reasons *Continental Classroom* has been a successful experiment in educational television is the nature of the subject matter. Chemistry and physics are visual

¹Bell Telephone System, E. I. du Pont de Nemours & Co., General Foods Fund, IBM Corporation, Minnesota Mining and Manufacturing Company, The Pittsburgh Plate Glass Foundation, Radio Corporation of America, Standard Oil Company of California, Union Carbide Corporation, and United States Steel.

sciences. Drs. Baxter and White—in every lesson—used diagrams, drawings, and special equipment to illustrate their lectures. In addition, the skilled NBC production staff enhanced the presentations by employing close-up shots, superimpositions, split-screen, and rear-screen projection.

CHEMISTRY IN COLOR

According to Robert Rippen, the producer, certain aspects of telecasting the chemistry lessons created problems which did not exist in the physics series. "The fact we were taping in compatible color was the major reason for the new problems," he explains. "The blackboards are a case in point. The first year we used green, but since this is not a complimentary color for the person working in front of it, we had to change to blue."

Pre-studio planning for the chemistry series frequently was more time-consuming than it was for physics, Mr. Rippen points out. "Owing to the fact that most of the demonstration materials used in teaching chemistry are expendable, more man hours and more hands were required. One need only have stepped into the *Continental Classroom* 'lab'-office to appreciate this fact."

In addition to installing a chemistry laboratory bench in the production staff office, two fume hoods, a refrigerator, an electric oven, steel storage cabinets, and a machine for making distilled water were located adjacent to desks and typewriters. "The *Continental Classroom* 'lab' is the only

one in the world with wall-to-wall carpeting," Dorothy Culbertson, executive producer, said. "And Robert Rippen is probably the only television producer who possesses a liquor license." The latter was essential since it permitted the show to dispense ethyl alcohol in Rockefeller Center.

Because there is only one color studio in the RCA Building, *Continental Classroom* had to share it with four other shows each week. Consequently, the taping schedule was an erratic one: Monday, Thursday, and Saturday afternoons and Wednesday mornings. Rehearsals took a minimum of two hours; the actual taping, one half-hour. Usually the lecturer ran through his lesson twice before it was taped. The first run gave the teacher and the director a chance to plan placement, shooting, timing, etc. The second was a dress rehearsal.

PHYSICS EVALUATED

In order to ascertain the over-all effectiveness of *Continental Classroom*, a three-part evaluation of the "Atomic Age Physics" course was conducted:

1. To determine the immediate effect of the course on the quality of physics teaching in high schools, tests were administered to 4,000 students in 36 schools. Some of these students were taught by teachers viewing *Continental Classroom*; others were pupils who studied with teachers not following the program.

2. To determine the effectiveness of various methods of supplementing the *Continental Classroom*

lecture-demonstrations, tests were administered at 28 institutions to students taking the course for credit.

3. To determine attitudes toward teaching by television, interviews in depth were conducted in nine geographical areas throughout the nation. This national poll represented a sampling of 8 per cent of teachers and non-teachers enrolled for credit.

"While the high school study did not reveal a significant difference between students taught by teachers regularly viewing *Continental Classroom* and students taught by teachers not regularly viewing the telecasts, the depth of the research may not have been such as to reveal these differences," according to Dr. John J. Kelley, national coordinator for the AACTE.

"The college study revealed that students enrolled in colleges which supplemented the TV course with additional demonstration classes scored higher than did those enrolled in institutions not doing so. It was discovered, however, that supplementing the TV course by student laboratory work or written assignments did not result in test scores of significant difference," he said.

"Interestingly," he continued, "those students who viewed the

physics lessons in their own homes scored higher than did those who viewed as a group in the classroom."

INTERNATIONAL INTEREST

Interest in the *Continental Classroom* courses is not confined to the continental limits of this country. "Atomic Age Physics" has been purchased by the Nippon Hose Kyokai educational television network, and is being telecast over NHK stations throughout Japan. Many Canadians living near the U. S. border view the lessons, and inquiries have been received from Argentina, Brazil, England, France, Germany, Guam, Holland, Mexico, Peru, the Philippines, Samoa, and Sweden. In addition — on an experimental basis — one lesson of Dr. White's physics series has been translated into Spanish, French, and German.

What of the future of courses for credit over a commercial network? Long-range plans remain in the exploratory stage. But it is certain that in an age when America is concerned with providing educational opportunities for the rapidly increasing numbers of students, television will play a vital role. Even now it is proving its worth — by broadening and enriching both physical and intellectual horizons.

How to Finance an ETV Station

WTTW Chicago tells its campaign story

There are no secrets in successful fund-raising for the educational television station. In fact, probably the most important single factor in raising money is dedication.

The successful development operation has three essential components: scheduling, organization, and personnel. A schedule will fail without adequate organization to provide material of all types, and neither superior organization nor schedule can succeed without appropriately trained personnel to see through the strict demands of a year-round campaign organization.

To the foregoing factors must be added adequate professional leadership and a body of dedicated, tenacious workers as a catalyst for the pay-off: community dollar support. In addition, every intelligent planning group, which aims at raising a substantial sum of money, first looks for the leadership to initiate the campaign.

In 1952 a group of Chicago community leaders were assembled by

the eight Chicago area universities to constitute the Chicago Educational Television Association and

By John W. Taylor
and
Edward L. Morris

*Executive director and director
of development, respectively,
of WTTW, Channel 11.*

inaugurate a drive for funds to launch our "Window to the World," Channel 11. This group of leaders selected as president, Edward L. Ryerson, then chairman of Inland Steel Company and one of the original organizers of the Community Fund of Chicago. Mr. Ryerson's prestige in the area was to be of great importance in the successful drive to launch WTTW-Channel 11.

Headed by Mr. Ryerson, the group organized "task forces"

which directed their efforts at corporations — as well as selected individuals — through special-gifts "teams," and at communities through "door-to-door" campaigns. A special group devoted its efforts toward canvassing local and national foundations. As was true of all early ETV drives, the effort was aided by a matching grant of \$150,000 in equipment from the Fund for Adult Education.

The initial drive netted \$833,500, but, as may be the case frequently with such a widespread community effort, many of the workers in both the corporate and the community divisions gave the impression that the effort was to be a one-time thing and not to be repeated. As a consequence, in subsequent fund-raising efforts, many initial givers have had to be completely reoriented. In some cases, WTTW volunteers and development staff have found disinterest and unwillingness to repeat the drive. This problem has been overcome, gradually, as the number of educational program hours has increased, and promotion and publicity — coupled with continually improving programing — have strengthened the station's community image.

The efforts of this station to develop funds for its operation have been very closely tied in with program activities. That is to say, individual citizens and community organizations as well have been made to feel that the station belongs to them and their children.

There is, of course, always a sentimental appeal in community betterment but in WTTW's case, promotion emphasis has been based consistently on service to the entire community. The image has been projected in terms of "There's something for everyone on Channel 11," so that the viewers would not regard the station as especially for any one group. Image-projecting slogans in the last two campaigns have carried this theme along with the phrases, "The need to know" and "See for yourself." These slogans were used in all literature, outdoor signs, news releases, as well as in on-the-air "build up" and campaign promotion.

WTTW fund campaigns direct special appeals to

- Corporations
- Individuals (via mail)
- Parents (through the schools)
- Families (door to door)
- Family and corporate foundations
- Trust officers of banks and large legal firms, with the hope that bequests will result. This is a newly initiated effort.

Each of these fund drives is planned carefully and every item is reduced to a schedule.

Planning for the special-gifts drive (corporations and large gifts) begins in the late spring. The president and the executive director, at this time, undertake to recruit an over-all chairman for this drive. Summer months are devoted by the chairman to the recruitment of vice-chairmen, each of whom is asked to recruit, in turn, his own team

of workers. These teams are supplemented through a series of luncheons beginning in late September, to which the president invites leading executives of Chicago corporations. There is no beating around the bush. When invited to these luncheons (usually three in number, stretching through October) executives are clearly told that their help is again needed to raise funds for WTTW. Practice has shown that most of those attending this series of meetings expect to participate and, therefore, select their assignments without hesitation.

The regular result of this technique has been the assembly of 12 to 15 special-gifts vice-chairmen and 100 to 150 workers. This campaign accounts for about 50 per cent of the annual fund campaign. Following assignment luncheons, each worker receives a kit of materials for distribution and pledge cards. He also receives an assignment record sheet showing name, address, and telephone number of each prospect who has given more than \$100 in previous years, together with his contribution record. A copy of assignments for each worker on his team is given to the vice-chairman assigned for follow-up purposes.

Allowing for human failure is most important in fund-raising. Busy executives may frequently be unable to fulfill an assignment. To back these men up, WTTW sends an anniversary appeal letter to each corporation with a giving record

which, in its first year with established contributors, is more than 90 per cent effective.

This important campaign is now so well organized that Mr. Ryerson has been able to tell his special-gifts teams that raising funds for WTTW is an "easy and painless process." Mr. Ryerson says that the money is waiting and that all the team needs to do is go out and ask for it. They do — and they get it.

Similar to the special-gifts campaign, the mail campaign is a matter of precision. Bids are taken for literature, remittance envelopes, and letter services in early summer. Once material has been ordered as inexpensively as possible and literature and covering letters are written and reproduced, the mail campaign is ready to function. While these things are being done, A. G. Ferreira, Channel 11 business manager, who coordinates the mail appeal, works with Mrs. Kay Kindelin and Betty Koch, from the station's staff of receptionists and switchboard operators, to bring records up to date and add carefully selected new names to the mailing list. By the time this is done, vacations have come and gone and envelopes, literature, and appeal letters are ready. The Channel 11 mail drive is divided into two major appeals, one in October and the other in January. These are carefully mailed so as not to hit bill days or Fridays, which tests show are bad days for appeals. Anyone who happens to have a lull in work will suddenly find himself contributing to the mailing effort.

Careful checking, still more careful follow-up, persistence by Mr. Ferreira, and the interest of all "development" staff in the results (not to mention WTTW's programs) have paid off in an overall increase of 20 per cent in mail receipts in fiscal 1960-61, and the repeat donation percentage regularly pushes over the 65 per cent mark.

WTTW looks on its house-to-house effort not only as a money-raising operation but as an opportunity to promote community viewing of the station's programs. The effort is centralized under "development," with the campaign push in the hands of Mrs. Robert Ryan, WTTW community relations director. Mrs. Ryan also takes the major responsibility for the in-school drive which will be described a little later.

Recruitment of community chairmen for this person-to-person campaign begins immediately after Labor Day. Mrs. Ryan, aided by a clerical assistant and a part-time assistant, devotes late spring and early fall to setting up "call" sheets on past workers and new prospects. Calling to recruit the new community chairmen and bring back the old-timers starts in October. Until Thanksgiving, the telephone dials whirl. Stock taking, preparation of instructional kits and materials, and planning for campaign publicity and promotion occupy the time between Thanksgiving and the New Year, a particularly unprofitable time for recruitment. Beginning after the first of the year, men on loan from large companies

in the Chicago area come in to augment Mrs. Ryan's little staff. Announcement of campaign chairmen in the community newspapers begins early in February.

A successful feature of the community house-to-house campaign is a briefing session for the large group of chairmen which is held in one of WTTW's studios in the Museum of Science and Industry. The meeting is preceded by tours of the studios for all; this year 150 campaign leaders attended. At the 1960 session, the president of the association outlined the station's needs and gave inspiration to the workers. His talk was followed by entertainment by two of the station's star performers, popular science lecturer Dr. Daniel Posin, and the children's favorite, western singer Arkie the Woodchopper. Chairmen were given the opportunity to ask questions about the campaign, to discuss personal campaign problems and have answers from the station's development staff. Following the briefing, carefully planned picture-taking sessions were held to obtain publicity stills for metropolitan and community newspapers, and filmed spot announcements utilizing chairmen from throughout the area were recorded for later scheduled playback promotion.

As usual, WTTW used its own air time to brief the thousands of community campaign workers. Chairmen from throughout the area assembled in the studios for a "live" TV program from campaign headquarters to build morale at "kick-off" time.

WTTW has had excellent cooperation from schools throughout the area, outside the city of Chicago, in still another phase of its yearly drive for funds. The Chicago City Board of Education prohibits any in-school solicitation and hence only door-to-door efforts are made at the city's grass roots. Superintendents outside the city are approached first and, in turn, school principals are reached by WTTW development personnel. The staff obtains requisitions for individual flyers from school personnel and then undertakes the mass packaging task required to transmit solicitation materials to each school. Following the distribution of more than half a million pieces of literature, remittance envelopes, and instruction sheets in about two weeks of actual working time, the WTTW staff needs only to followup on in-

dividual schools. The School Board of the Chicago Archdiocese administers its collection in over 500 schools and turns in the proceeds in a single check.

With the close of the school drive, the year's totals are recorded and the entire process described begins to repeat itself. To succeed in raising money in Chicago, where educational television must compete with at least 260 other organizations, the Community Fund, and the national appeals, dedicated year-round effort is the rule. Nor does WTTW neglect its supporters for the rest of the year; representatives from a speaker's bureau of more than 30 persons speak to over 100 community groups each year, and every identifiable contributor receives the station's quarterly newsletter. There is something for everyone on Channel 11!

The view of the stage (90 feet away) from the operating position of the image orthicon camera in Wheeler Auditorium at the University of California Extension. During the lectures, Dr. Teller spoke from a podium in the center of the stage. He used an overhead projector which placed an image on a large projection screen which was pulled down behind him. Either a bust shot of Dr. Teller or a single view of the projection or both were available for the camera with its zoom lens from the operating position.



Image Orthicon Goes to College

Author tells of its use

In the past, for reasons of cost and complexity of operation, the choice for closed-circuit television camera equipment in colleges and universities has usually been vidicon rather than image orthicon. With the increasingly greater demands made upon the reliability and flexibility of television camera equipment in educational institutions, attention should be directed to the recent introduction of more simplified and stable image orthicon equipment.

At University of California Extension at Berkeley we have been using a Marconi Mark IV, 4½ inch image orthicon camera in various television activities about the campus. With this single camera plus a Super Universal Zoomar lens having an over-all focal range of from 2.5 to 40 inches, we have run the gauntlet from a two-hour one-camera outdoor origination fed to KQED-TV, San Francisco, to preliminary work leading to the closed-circuit televising of a course to large classes this fall.

The principal use of the camera is to pick up from Wheeler Auditorium on the Berkeley campus for

By Ken Winslow

Head of TV activities, both broadcast and closed circuit, for the northern California area for the University of California. Formerly engineering studio supervisor for KQED-TV, San Francisco.

broadcast over KQED-TV, Channel 9, San Francisco, the Physics 10 lectures of Dr. Edward Teller, which are given three days a week to a class of about 800 students. Positioned at the rear of the auditorium, the camera permits anyone in the San Francisco Bay Area to attend these lectures by turning on his TV set. No additional lighting has been installed and existing

equipment gives at the most 40 foot-candles incident light. A zoomar range of $6\frac{1}{2}$ to 40 inches is used to cover both Dr. Teller and written material which is shown by an overhead projector on a screen behind him. The camera is behind the last row of seats at a distance of 90 feet. The usual lens opening needed for proper signal levels is about f8. The ambient light level is on the order of 2 foot-candles. Two men handle the full operation: The man on the camera "follows" the action while the other watches audio and video levels and for the most part just "sits by." We have been told by microwave personnel of the telephone company and the station that the quality of the signal compares favorably with that of the studio.

The camera has proven extremely portable without any sacrifice of quality, under conditions ranging from the bright sunlight outdoors to the very dim lights of a darkened auditorium. After one of Dr. Teller's lectures, the camera and accessory equipment was loaded into a station wagon and in one and one-half hours was ready for operation at the large, outdoor Greek Theater overlooking the Berkeley campus. Arrangements had been made to broadcast live for two hours, over KQED-TV, the university's 92nd Charter Day ceremonies. West German Chancellor Konrad Adenauer and James B. Conant, president emeritus of Harvard University, were the featured guest speakers.

The ability of the camera to per-

form well in low-light-level situations was demonstrated when a four-week class in music instruction was held for which there was a large demand for admittance by student auditors. For experimental purposes, some members of the class moved to a room in an adjoining building where they received the lessons via coaxial cable and shielded audio pair. The camera equipment was moved very easily by two men. Facilities were so arranged that one man was able to carry out the entire CCTV operation.

Before the presentation, the white and black levels were set. Besides over-all system stability, the camera has circuits which maintain the video signal within predetermined limits, thus preventing the overloading of the distribution and reception system. This feature permits practically unattended operation of the camera control position, with the net result that one man is needed only to pan and tilt the camera. The originating conditions were very severe. The nature of the activities—music instruction—permitted no interruption. Students and auditors in the auditorium of Hertz Hall were paying special fees and had every right to expect absolute quiet and freedom from distraction. The instructor would tolerate no front light whatsoever. The camera was positioned in a balcony about 80 feet from the stage. Overhead illumination at the stage, from house lights, reached a maximum of 35 foot-candles. Illumination from the front at the lens angle was at the

most 2 foot-candles. Extreme contrast ratios ranged from the white piano keys to very dimly lit areas at the front and rear of the stage. The 6½-to-40-inch zoom range was used at about f8. Students viewing on 21-inch video monitors, about 500 feet of cable away, were quite pleased with the results. Room lights in the viewing area were left on to enable observers via television to follow the musical score. Since the presentation was continuous for three hours, two men were used for relief purposes. However, only one man at a time was required to conduct the total operation.

Needless to say, we are quite pleased with the results we are obtaining by using this type of image orthicon equipment. The degree of complexity of our equipment, which is representative of the coming developments in image orthicon equipment, is easily mastered and handled by any ordinary technically qualified and competent person.

Certainly, image orthicon equipment is more expensive. Daily, the

demands for flexibility and quality of result placed upon the use of television in educational applications are increasing. When television facilities cannot meet these increased demands, it must be counted as a step backward at a stage when the developing applications and systems of television in education can ill afford it. The use of image orthicon equipment, whenever the economic realities allow it, will permit giving the viewer the quality he is coming to expect at a time when he is learning to learn by television.

In a school classroom you would not expect a student to do as well with dull or broken pencils, dirty paper, or illegibly printed textbooks. I cannot help but wonder how many of the numerous projects about the country had their results affected by using inappropriate facilities. It is not enough to just investigate the use of television in teaching—it is of equal or of greater importance to investigate the kind of television facilities to be used as well.

Needed: An ETV Vocabulary

Author recommends study and standardization

While educational television is not so threatened by multiple tongues as was the tower of Babel, nevertheless it has its language problems. I refer to our professional language, the vocabulary of which is growing without limits or standardization. While it may be ironic, even the video world cannot escape the dictatorship which language imposes; and the pattern of growth, the self-image, the promotion of projects, and the analyzing of successes and failures — all must be clothed in words. If educational television is to progress intelligently, the imperative is obvious: Like every other field of endeavor, it must have a language adequate to its needs. I should like to point out in this article some of the contradictions in our vocabulary, and suggest some specific actions which should be undertaken to standardize and ultimately improve it.

Certainly, this is not a new problem, for every serious professional group must sooner or later standardize to some degree its technical language. But rapid growth and the unique nature of educational television have already pinpointed the need to define. For after all, educational television

was born automatically with a muddled language in 1952, when the FCC united two movements as disparate as television and education.

By E. G. Sherburne, Jr.

Statewide coordinator of ETV of the University of California. Formerly a program associate with the NETRC and director of programs, WGBH-FM-TV, Boston.

The word-children of that merger are still with us, and it is not surprising that some are problem children. One would not expect either the show-business vocabulary of commercial television (which was all television had), or the vocabulary of a book-oriented education to be satisfactory to describe the new systems and relationships brought about in the development of educational television.

In analyzing our word problems, I found four ways of discussing them. First, there is the problem

of inexact usage. Second, there is the adoption and use of words which have undesirable connotations. Third, there is the problem of a plethora of dissimilar words being coined independently in local situations, all applying to the same operation or to approximately the same thing. The fourth and final is the biggest area of concern — simply the problem of coining words which will clearly and concisely describe many of the complicated situations, tasks, and relations which have developed since the advent of educational television, and for which there are no prescribed and acceptable terms.

Before offering suggestions for clarifying and improving our professional vocabulary, let us examine some specific examples of the language difficulties to which I refer.

WORDS MISUSED

Consider the inexact use of words. Without getting into any philological debates, I will assume that we all believe that language must develop and evolutionize to meet new needs and situations. On the other hand, there must be respect for meaning and adherence to correct usage and accepted definition if the practical purpose of language is to be maintained — meaningful communication to other people.

The misuse of words which have clear and well-defined meanings muddles our communication. From observations and records I have

been keeping, there are some striking examples to point out to you. Here is one quote which I jotted down at a meeting some weeks ago: "We are broadcasting closed circuit the films of live shows done elsewhere supplied to us by the educational TV network." This was reported by a person describing the activities of a school system.

Let us examine some of the words. The word "broadcast" is an excellent example. More and more frequently it is used in educational television circles to indicate transmission of any kind of television presentation. Does one even have to resort to quoting Merriam-Webster or to analyzing the evolution of the word "broadcast" to see that a statement like "broadcasting closed circuit" is like saying "yes-no"? Such usage appearing casually in conversations and reports can only add to the confusion of talking about television to audiences familiar or unfamiliar with the field.

Consider now the word "network." Commonly in educational television, the cooperating educational television stations in the U. S., loosely linked through the services of the NETRC, are referred to as a "network." Just for clarity's sake, let us look at the definition of network: "1. A fabric or structure of threads, cords, wires, or the like crossing each other at certain intervals or knotted or secured at the crossings. 2. Any system of lines or channels interlacing like the fabric of a net. 3. A chain of radio or television

stations."¹ Very, very loosely, one could speak of an ETV network, but compared with our pragmatic knowledge of what a commercial network is, implying interconnection and simultaneity of program transmission, the educational television setup is not the same thing. If "network" is to be used to describe national ETV, two kinds of "interconnections" should be named and described, so as to readily distinguish the kind of relationship one is talking about. Actually, the relationship of the NETRC is more like that of an organization syndicating material for TV, and perhaps might be called a syndication network. Certainly clearer terminology would help, since on numerous occasions, I have had to take valuable conference time to explain that our educational stations are not really part of a network, but are a part of a network. Wide acceptance of more accurate terminology within our ranks would at least facilitate better communication. Many other words from administration or production could be added to these examples. But my objective here is to suggest the problem and its ramifications, not to deal in detail with the specifics.

UNDESIRABLE CONNOTATIONS

The second category deals with words bearing undesirable connotations. Here many will disagree with me, though others have had

the same thoughts, I am sure. The words I place here are those used more or less accurately, but connoting a different situation from the one referred to in educational broadcasting or closed-circuit transmission.

The best and most familiar illustration in this category is the word "show." Few can disagree that this word at least *connotes*, if not *means*, something most likely to be described in *Variety* or *Billboard*. Everyone searches for a better word, but eventually gives in. Note in the NETRC publication *Inside Channels* for May, 1960, a headline: "No Summer Gap In NETRC Programming — Coming Shows To Be Most Timely Yet." Understand that I do not make any pretense of knowing just what word should be used to replace the word "show." However, there must be a term which more accurately describes the category of educational presentations which includes lectures, discussions, demonstrations, performances, etc. But a "show" has connotative significance stretching from the medicine wagon to Elvis Presley, and it hardly seems the best word to set aside and apart the production of education on television.

While I cannot go into the issue in detail here, it certainly may be that the use of connotatively wrong words may even affect our judgment and concept about the product we produce and see. What I mean is, if we call a presentation a show, perhaps that is what it will be!

¹*Webster's New Collegiate Dictionary*, 2nd ed. (G. & C. Merriam Co., 1951).

Other words which have come over to educational television from the commercial field are "sponsor," "commercial," "spectacular," "plug," "talent," "star." For example, I have heard educational station personnel and students referring to the promoting of the station or of its programs as "commercials." This is sometimes done in jest — but not always so, I fear. We should remember that along with the words comes their connotative significance, and perhaps some reflection of the attitudes of the persons using them.

LOCAL COINAGE

The third category includes the similar words being coined independently in local situations, all applying to the same operation or approximately the same thing. Within the educational television ranks, there is an onslaught of new words pouring forth in a literal flood. I have recently seen the "supervisory" person in a college classroom using TV called: "procutor" at Pennsylvania State University, "assistant instructor" at Miami University, "class instructor" at International Business Machines, and "RRI" or "receiving room instructor" at Los Angeles City College.

While I was compiling this list, a report came to my desk from the Oregon State System of Higher Education discussing "RI's." I mentally referred to my list, but found that the RI's were not "room instructors" nor were they "receiving instructors." They were

"receiving institutions." I am not making any judgment or criticism of any of the terms. They are all acceptable and descriptive. But for the purposes of comparing, testing, budgeting, who can deny the confusion? And it will be increasingly common! And of course, this one illustration can be multiplied.

A LACK OF WORDS

The last category is perhaps the most important of all. It includes the words we do not yet have. There is an imperative need to delineate the many situations in educational television for which there are no terms or no precise terms. This is of basic importance. Walter Lippmann says, "For the most part we do not first see and then define, we define first and then see."² Our lack of words can "blind" us in a sense, and prevent us from "seeing" many of the relationships before our eyes.

Take the most obvious first. Within our own ranks, or in talking to or writing for the public, "educational television" is often referred to as a very definite kind of television. Actually, "educational television" is a generic term, and it describes such a broad area of effort that it is not really very meaningful any longer. The time is more than ripe to describe the species. True, there are many varying systems of ETV, but that is exactly why distinction is demanded. We must remember that

²Walter Lippmann, *Public Opinion* (Penguin, 1946).

"educational television" encompasses a range of endeavor from the use of a small camera within a single classroom for showing microscope slides to live classical music broadcast by an ETV station to the Hagerstown in-school TV project. Surely it is not too soon to ask for terms to identify and differentiate these and the other kinds of educational television efforts.

Another area where we need some attention is with "program types." We have not sufficiently differentiated in our own minds the many and varied kinds of programs with which we are concerned, both in broadcast TV and in closed-circuit TV. For example, in broadcast-TV instruction alone, we have at least the following:

1. TV plus class, where TV is used to transmit the lecture portion of a course, and section meetings are conducted face-to-face.

2. TV plus class, where TV is used to provide instructional material as a part of the face-to-face teaching done by the regular class teacher.

3. TV plus home study, where the student has a text and syllabus, sends in assignments for correction and grading, and takes at least one supervised exam.

4. TV plus home study, where the student studies at home with a syllabus and perhaps a text, does not send in assignments, and may take a final exam.

5. TV plus home study, where the student studies at home, generally just from a syllabus, but

does not submit assignments nor take a final exam.

That our concepts and terms are loose was well illustrated recently at a meeting between a correspondence-instruction administrator and a representative of *Continental Classroom*. Much discussion (and misunderstanding) about the development and coordination of a correspondence course in connection with the TV series had ensued before either party realized that the problem was semantical. The university representative, in using the term "TV correspondence course," was thinking of the rigorous "Type 3" approach. The other participant was talking about a "Type 4" approach. There was really no error on the part of anyone; it was a straightforward example of how the many ramifications of television study need to be defined and specified to help us talk even to one another "within the profession."

EDUCATOR BEFORE THE CAMERA

Communication could also be improved in the areas concerned with the words describing people from education in their television roles. We now generally resort to "host," "hostess," "moderator," "talent," "star," "demonstrator," and reluctantly to "teacher" or "instructor," yet none of these terms is at all times precise for the situation. There must be some word (or words) to describe some of the roles the educator plays in front of the television camera. For example, what should a person be

called who presents a noncredit, cultural enrichment, adult program on art from a museum in the evening on educational television? In some museums, teacher-guides are called "docents." Perhaps such a person should be called a "video docent" or "videocent." However, my own role is not to suggest — but simply to point out our dumbness in a virtual sea of words.

ETV VOCABULARY IMPERATIVE

I think that it would be belaboring the point to describe our inadequacies further. Suffice it to say that I think our language is important. A precise and complete vocabulary for educational television is not a luxury but an imperative.

● First, we need such a vocabulary for communication related to legislative and budgetary purposes. All over the United States — at local, state, and federal levels — there is actual or proposed legislation concerning educational television, a form of endeavor for which we do not have a definition. In addition, the language used in many of the cases is inexact to an extreme. The multiple meanings (or lack of meanings) of many of the words and phrases used make it difficult for legislators to understand what is proposed, and for them to interpret regulations after they are passed. Similarly with budgets, it is difficult for educators to describe clearly what they intend to do, and legislators and

budget analysts will find it difficult to understand proposals and to assess performance against promises.

Although I had intended to stop giving examples at this point, I cannot resist mentioning a recent proposal for a modification of Title III of the Federal Communications Act. In it, there is a definition which includes a videotape recorder as a transmission apparatus, and which uses the phrase "television broadcasting (including closed circuit television)."³ This is in proposed legislation at the federal level.

● The second reason for a precise vocabulary is simply to improve communications among ourselves, within the field of education television. The advantages and necessity of this are self-evident. It is needless to elaborate on what a successful "in-group" language means in facilitating cooperation and understanding in a particular area of effort.

● The third reason lies in the need to communicate with the public. And this is not the least of the tasks which would be assisted by a better definition of the words used to describe our activities. One of the problems of ETV has been the difficulty of setting itself apart as a service unique from commercial television, from "shows," "amusement," "escape entertainment." Part of the problem has

³House of Representatives, 86th Congress, 2nd Session. Report No. 1466, to accompany HR 10609.

been the concept of television existing in words, terms, and comparisons, in the shape of television as it first exploded on the scene. Support for ETV will come through a clear message of its purpose and structure, and this message will be best when we have an adequate vocabulary. In our competitive culture of promotion, ETV needs to have its uniqueness verbalized as well as visualized.

I think that although our problem is a fairly easy one to define, it will be more difficult to find a solution. Actually, some of the difficulties which I have described can never be eliminated in as dynamic and fast-moving a situation as that of educational television. But I do think that there are some steps which can be taken which will move us forward.

RECOMMENDS ACTION

I would first of all like to see more consciousness of vocabulary, both of its importance and of its present state of unreliability. If we can at least recognize that we have a problem, we will have begun. Next, I would like to see us exercise self-discipline, and try to use existing terms precisely.

But most important, we need action. I would therefore recommend the formation of an NAEB Committee on Professional Vocabulary to attack the problem. This committee should maintain a continuing study of the vocabulary of educational television, publish from time to time a recommended

"common vocabulary," list words which should not be used (a somewhat unusual but important aspect of our problem), approve new words which have come into the vocabulary or which have been suggested, and study the areas of ETV which need but do not have an adequate vocabulary. Such a committee might request grants to carry out vocabulary studies and to have such studies carried out under its supervision. And the committee should affiliate with appropriate groups in other professional organizations and in other countries. At all times, the committee would be a champion of accurate, precise, and specific vocabulary for educational television.

The work of such a committee would greatly help. But do not misunderstand me. I do not mean to indicate that words will solve all of our problems. As Hayakawa says, "People often believe, having defined a word, that some kind of understanding has been established, ignoring the fact that the words in the definition often conceal even more serious confusions and ambiguities than the word defined."⁴ A vocabulary committee will not completely provide an escape from the pitfalls of confusion and ambiguity. There is a responsibility for each of us, every day, to be clear when we write and speak, and to illustrate with specific examples of what we are talking about.

⁴S. I. Hayakawa, *Language in Thought and Action*. (Harcourt, Brace & Co., 1949).

TV, Here We Come!

a book review by **Bernarr Cooper**

*Professor of Radio and Television
Florida State University*

What Is Important for the Success of a New Employee in Television? Part I, A Study of Statements by Station Managers, by Gale R. Adkins, Lawrence: The University of Kansas, 1959. 50 pages.

There was one over-all purpose for this study: What are the major qualities which are important for the success of new employees in commercial television? (No attempt was made to distinguish between those qualities desirable in commercial TV as against those which would be helpful in educational TV.) The elements of the major objective of this study were pursued strictly in relation to what managers of stations thought, and the author attempted to gather managers' reactions in relation to personal characteristics, areas of training (skills, abilities, and information), and the exact words and statements of management about qualities which make for success or failure of new employees in commercial TV stations.

The instrument used in pursuing this study was a one-page combination letter and open-end questionnaire. Two forms of the questionnaire were used to minimize any suggestive influence of the sequence of wording. A pilot study

involving twenty-five commercial station managers was first used to test the wording of the questionnaire.

The form of the questions was designed with the following in mind: Questions should be of such a nature that managers might be expected to have useful and informed opinions relating to their content. Questions should embrace matters about which students had often expressed concern. Statements elicited should serve the purposes of the study.

Of the 300 commercial stations to which mailings were sent, there was a return of 189 questionnaires supplying data for 42.7 per cent of the 442 commercial television stations then in operation.

The questions were four in number. The first three of these dealt with qualities of personality, training, skills, and abilities. The fourth question, open-end in nature, called for unstructured reactions on the part of management

to the training needs of future television employees.

THE FINDINGS

More than 90 per cent of the reasons for failure on the part of new employees have their counterparts in the list of valued qualities. This is further borne out by the fact that the three characteristics which are most highly valued by management are the three reasons most often advanced for employee failure. Therefore job success, according to this study, depends upon "ability to work harmoniously with people," "willingness to work hard," and "desire to learn."

Almost 88 per cent of the manager-respondents to the survey claimed to value personal qualities most highly, and 82 per cent of the reasons given for failure had to do with personality characteristics.

Management felt that there is not sufficient desire on the part of new employees to embrace hard work as a means to advancement. Management also felt that there is little appreciation or concept on the part of the new employee, fresh

from university training, to align his "personal approach to the job to be in agreement with the practical viewpoints of management."

A well-reasoned conclusion of this study seems to indicate that the teaching of content, performance, and production skills is not enough. Such teaching needs to embrace more thought and emphasis on how the teaching is accomplished. The implication is that teaching must result in four major developments for the student:

1. A sound personal philosophy
2. A well-developed and balanced personality
3. The ability to be "effectively self-directive"
4. The ability to approach the television job with efficient problem-solving techniques.

It is not unreasonable to assume that the characteristics sought by commercial television station managers are not too different from those sought by industry and education in all areas involving the human being as the main genitor of progressive effort: willingness to work hard, desire to learn, ability to get along with others, and sincere interest in the job.

Educator Encourages Audience to Watch Westerns

ETV used to evaluate commercial tv

Residents of about 850 homes in State College, Pennsylvania, receive a letter each week from Centre Video, a private corporation in Centre County that operates a community antenna system bringing better television reception to this mountain town. In addition to picking up the offerings of several western Pennsylvania stations and transmitting them by cable to the homes of the subscribers, Centre Video also provides the link between the homes and the TV studios at Pennsylvania State University. The university uses one of the channels on the cable for some of its instructional and research work.

The letter is from Robert Iversen, assistant director of the university's Center for Continuing Liberal Education, a unit whose mission "is to foster comprehension and investigation by adults of the social sciences, the arts and the humanities," and whose goal is a "community intellectually and emotionally alive" — a goal, incidentally, which the Center recognizes as never being fully reached.

One recent letter began:
"Try to watch some Westerns this week. As you view them, bear

By Marlowe Froke

Assistant professor, School of Journalism, Pennsylvania State University.

these criteria in mind: Is it a good story? Are the characters believable? Are the situations logical? Is it historically authentic? Does the story have a moral?

"Then join us on Cable Channel 4 on Thursday at 8:30 p.m. to discuss and rate these programs."

The letter went on to define the criteria and to list the Westerns scheduled that week on two western Pennsylvania stations, WJAC-TV, Johnstown, and WFBG-TV, Altoona. The Westerns were listed alphabetically, and perhaps a wag might say descriptively, too, for "Bonanza" headed the list of nineteen.

If a viewer accepted the invitation, he saw first a telephone operator and heard her encourage him to call the studio and join in the program with conversation. And then he saw Iversen introduce the program, "TV Guidelines."

Iversen added a rather lengthy bit of encouragement for telephone participation to that already given by the operator, and then introduced the other studio participants: Dr. Robert Murray, head of the history department at Penn State, and Dr. Robert Reifsneider, associate professor of theater arts.

They began talking . . . about "Bonanza" . . . and about "Cheyenne," "The Deputy," "Gunsmoke" . . . and on through "Wanted: Dead or Alive," "Wagon Train," "Wells Fargo," and "Wichita Town."

Murray said he liked Westerns. All Westerns. And he said he wasn't saddle-sore with the thirteen hours of them offered each week by the two stations.

But he was critical. As an historian, he noted that the most authentic Westerns are about fictional heroes. He cited "Gunsmoke" and "Wagon Train" as two that, in his book, led all the rest. Not only were they authentic, according to Murray, but they seemed believable.

"Neither of these qualities is characteristic of the television versions of the adventures of real Western personalities. Television loused up the real characters. Wyatt Earp and Bat Masterson are hokum," he said.

Reifsneider praised "Maverick" as the best theater achievement in

the Western offerings, and he categorized it as an adult costume comedy — an excellent one.

Both agreed that most of the other Westerns are claptrap and poor imitations in an industry where imitation is the rule and not the exception. Their evaluations were supported by three viewers who called the studio during the hour-long program to chat at length about their opinions of Westerns.

At the end of the hour, Iversen summarized the discussion and invited the viewers to tune in next week to discuss children's comedy programs, "Huckleberry Hound," "Clutch Cargo," "Quick Draw McGraw," and others. He said the studio guests would be Francis L. Whaley, associate professor of psychology, and Mrs. Gloria Helfgott, an illustrator for children's books. He suggested that children's comedy be viewed with these questions as critical guidelines: Is it funny? Is it imaginative? Is there a feeling for human values? Is it part of the child's world? And he reminded the viewers that they would receive in the next day's mail a letter with more details about the category and criteria.

The significance of Iversen's "TV Guidelines" program is its attempt to vault the iron curtain of antagonism and suspicion that separates the broadcasting industry from its most valuable source of criticism. This antagonism and suspicion, which was relatively dormant in recent years, has reasserted itself in this year of television's trial. Members of the academic community — with the exception

of those educators directly concerned with the mass media — have adopted an I-told-you-so attitude, and have renewed their scorn for the newest of the media. Representatives of the industry, in countering all criticism, have brushed off the abominable term "egghead," and used it with vigor in attempting to convince the public that the current criticism comes from the unreality of cloud nine, devoid of merit.

Iversen is convinced that the television industry needs its intellectual critic, and indeed that the industry should nurture him. He is also convinced that the intellectual must doff his scorn for television and approach the medium with positive, constructive criticism devoid of cynicism, sarcasm, and repugnance.

On "TV Guidelines," the weekly verbal joust between intellectual critic and audience does more than seek to direct the intellectual's attention to TV. It creates some positive critical standards that the general audience — if it wishes — can use to evaluate television programming.

Viewers are encouraged to watch Westerns not only as entertainment, but as theater and history; children's comedy, not only as a built-in baby sitter, but in its psychological implications; all TV entertainment, not only as diversion, but in its worth as diversion.

The viewers are then encouraged to make their views known to advertisers, stations, and networks.

WHAT THE PEOPLE WANT

If Iversen succeeds in activating the viewer, he will have done much to destroy that last refuge of the television broadcaster who, when attacked, laments, "We give the public what it wants."

Iversen maintains that the broadcaster doesn't know what the public wants, and that the public watches television in a sea of wantlessness: "One can be satisfied with anything if he doesn't know that there is something better. He can't want something that he doesn't know exists."

"Station operators," Iversen says, "have had access only to an audience evaluation that is basically negative. Most of the letters they receive — and there are surprisingly few of these — are from persons whose personal prejudices have been bruised or whose toes have been stepped on. And the nose-counting results announced periodically by the rating services are just as negative. Essentially they are of 'I don't like' character for, just as they measure how many are watching, they measure how many are not. The rating services have no element of positive criticism."

Iversen wants the general audience to be more than passive in television's communication process. He wants viewers to be more than just counted — or more aptly, not counted — by Arbitron, Trendex, or Nielsen.

The passiveness of the television viewer is just another aspect of the great American spectator tragedy. If one views television as a

mass soporific, it certainly has contributed to the tragedy. But in the context of positive criticism—one of the few areas in which a television viewer can be active—Iversen holds the television industry accountable.

"Station operators have all but convinced the viewers that they are getting something for free, when in reality they are paying dearly."

How dearly was cogently stated by Dr. Charles Siepmann of New York University in a recent speech: "Broadcasting is as great a social influence as any in our time, the churches included. What you (broadcasters) say, what you bespeak, what you honor — these become in some sense the atmosphere the people breathe."

An attitude of something for nothing, Iversen says, leaves the viewer with only one of two choices. As with charity, he can either accept or reject. Both avenues of choice are basically passive. Unlike charity — which can be exhausted — there is no motivation to assume a more active role. The screen will flicker on and on and on

The broadcasting industry further discourages positive criticism by assuming a posture of private industry. While broadcasters must as a matter of practicality move back and forth from the green pastures of free enterprise to the protection of the public preserve as need and self-interest justifies, this movement rarely is visible to the public. Broadcasters by silence and attitude have convinced the public

that the channels and frequencies belong to the station owners. The public is almost completely unaware that the airwaves belong to the public, and that the broadcasters are only the custodians.

Under the banner of free enterprise, broadcasting is sanctified. Positive criticism becomes meddling. And no one wants to be a meddler.

"Broadcasting is the poorer," Iversen maintains, "for discouraging positive criticism."

Against this background, Iversen's "TV Guidelines" is like a lamb doing battle with a lion.

Within the confines of a modest critical effort, he is attempting to make more active the intellectual's interest in television, to make more tolerant the broadcaster of the intellectual, to establish some critical standards for television, and to make the viewer an active, positive critic of television.

The well-practiced eye of a cynic might measure his effort with the criteria that was used for the "TV Guidelines" program on adventure shows: Does it provide excitement? Is it convincing? Is it authentic? Is it believable?

And, speculating on the outcome, he might wonder if the lamb ever wins except in children's stories:

A raging, roaring Lion, of a Lamb-
devouring kind,
Reformed and . . .
Propelled a lamb for miles.
And he wed a wooly Spinster for a
wife.

However, Iversen already has received enough encouragement

Notes on "TV Guidelines"

A research report issued by the Penn State Division of Academic Research and Services reveals that over 95% of the subscribers to the community antenna system are "family" subscribers, with the remainder being institutions such as restaurants and clubs. Two-thirds of the way through the "TV Guidelines" experiment, 199 of the families were interviewed, with 89 of them filling out an extended questionnaire. The results showed:

- 21% of the potential audience viewed the program at least once.
- There was no gradual build-up of audience; it remained about the same.
- There were no significant differences as to age or education between viewers and non-viewers.
- Viewers of "TV Guidelines" tended to spend more time viewing TV than did non-viewers.
- Only 13% stated that "TV Guidelines" had in any way influenced their TV viewing, but most felt that the project had been worthwhile.
- Viewers felt that the networks and the general public (as opposed to local stations, sponsors, or government) should be responsible for program content. The "TV Guidelines" session which featured a panel of station directors saw the greatest audience participation.

from "TV Guidelines" to deserve more than the appraising eye of the cynic.

Robert Lewis Shayon, in the April 9, 1960, issue of *Saturday Review*, praised his work and suggested that educational TV stations everywhere should be duplicating the idea or creating other fresh approaches. "In a time of extreme cultural relativism, training in value judgments is imperative, and as it becomes ever more sadly apparent that the mass media are reluctant candidates for the role of trainer, it becomes more urgent

for the schools to take up the task."

Subscribers to the television cable in State College are watching "TV Guidelines." They apparently have found it valuable enough to forsake other leisure-time activities and join in the critical effort. More important, they apparently are acting. The number of letters received by the two western Pennsylvania stations has increased slightly, and the content of the letters is constructive, not carping.

The scholars who appear on the program have not hesitated to accept invitations to participate. In

preparing for their assignments, they have discovered much on television that is of merit. Some admitted that they didn't know that some quality was there.

And officials of the two western Pennsylvania stations have encouraged Iversen's effort by accepting an invitation to appear on the final program in the series.

While "TV Guidelines" is but a lamb, Iversen hopes to sustain the effort with an addition to the fold. Already in preparation is an adult education course to be offered through the facilities of the Center for Continuing Liberal Education. The course, which is being

developed by three Penn State professors under Iversen's supervision, will go beyond television and encompass all mass media. It will seek to establish an audience understanding of the mass media and some critical standards that can be applied to each.

What Iversen is hoping for might be summed up as a change in dialogue in "Marty."—

"What d'you want to do, Joe?"

"Oh, I don't know. What d'you wanta do, Marty?"

"Let's watch television."

"Naw, let's watch 'Gunsmoke' because . . ."

What Manner of Man?

The producer-director, television's teaching associate

As educational television came of age in the 1950's, one of its strongest contributions was direct teaching of myriad subjects. Instructional TV added quality to U. S. education by bringing to classroom or living room a blend of fine teaching talent, well-organized information, and intimate supporting visuals. Generally, the best of these telecourses were presented by a TV instructor aided by a new kind of teaching associate — the producer-director.

What kind of person is this ITV associate? What is his own educational background? In what ways is he contributing to the U. S. educational scene? Under what conditions does he work today? What are his insights into the teaching art which may have relevance to the American search for intellectual quality?

I don't believe we know. So far as I could determine at an NAEB conference for people like this at Pennsylvania State University in 1959, the new kind of teaching associate is virtually unknown. Perhaps because he is no more numerous than Americans who overpay their income tax, he has escaped

the literacy microscopes of Reisman, Packard, et al. Yet, as one

By Paul Blanshard, Jr.

Radio-television director, University of Pennsylvania. This report is a summary of returns from a mail poll conducted in the fall of 1959.

of this type myself, I know firsthand his satisfactions, woes, and participating efforts on behalf of the teacher.

This is a report of the ITV producer-director as a human being and friend of the teacher. It is based on a mail survey at least as reliable as a Trendex rating. My correspondents are ITV men and women in California, Georgia, Idaho, Illinois, Indiana, Iowa, Minnesota, Nebraska, New York, Ohio, Oregon, Pennsylvania, Texas, and Wisconsin. Among them, they have worked on at least 2,000 instructional telecasts—two-thirds of these for credit. Their

help was provided to teachers using everything from public service time on commercial stations, to teaching time on America's forty-plus educational stations, to closed-circuit installations at schools and colleges.

The average ITV man is intellectually broad. While he may not have the one-subject depth of the teacher, he needs—and customarily has — a many-subject awareness which can be transferred into reasonable depth by demand. He has at least an A. B.; my poll respondents averaged an M. A. in educational attainment. He is apt to be caught reading *Saturday Review* rather than the *Saturday Evening Post*. He has a fair sense of humor, a pretty good objectivity about his work and the humility of the would-be professional who has not yet arrived.

While he deals with the techniques of a communications medium mysterious to the teacher, he often will also know as much about what makes good teaching as does the typical instructor facing an American class. He has learned this through association with good teachers and bad. He has learned it through spending as much as eight hours preparing a single half-hour lesson for TV. He remains on the cultural scene, even though commercial TV beckons temptingly, because he is wedded to an old notion. His belief is that ideas are exciting, if properly presented, and that ideas have the power to move people. He is on the job feeling that TV is the greatest potential medium in history through

which to present ideas, excite people, and arouse them to action.

Probably the strangest part of his experience is the hostility, or indifference, of intellectuals to his concept of TV's potential. My respondents report these typical comments from their habitat of higher education across the country:

- *Herb Hake*, Iowa State Teachers College, quoting an assistant professor: "You're just trying to put a lot of teachers out of a job!"
- *Roger Walters*, Idaho State College: "We have key people here who are unalterably opposed to TV in any form, no matter how hard we work."
- *Donald MacLennon*, Corning (N. Y.) City School ETV, quoting a high school teacher: "The money for ETV should be spent on some much more urgent problems facing us, such as school construction and teachers' salaries."
- *Vincent Jukes*, Ohio University: "A wait-and-see attitude is here, as they want to see some courses taught by TV before they are willing to take the plunge themselves."

Our ITV producer-director has, of course, seen such indifference change once a teacher uses TV as a means of communicating:

- *James Prange*, Western Illinois University, quoting a professor: "First time I ever had results like this on tests after I finished a unit!"

- *Robert Crawford*, Queens College (N. Y.), quoting a TV instructor: "This has been a wonderful experience. I'm sure I'll be a better classroom teacher as a result."
- *Richard B. Lewis*, San Jose State College (Calif.), quoting from a study report on TV work: "The experience with television teaching was valuable to me."
- I should like here to quote Dr. MacEdward Leach, professor of English at the University of Pennsylvania, with whom I produced a literature course on WCAU-TV in Philadelphia: "TV teaching certainly makes you look at your material more imaginatively, more in terms of its effect. It's a good experience which every teacher should have at least once."
- *Hans-Werner Deeken*, then of the University of Georgia: "Instructors have told me that their work in TV helped them to improve their technique of presentation and the quality of their lessons."
- *Mrs. Edith MacNabb*, Millikin University (Ill.): "My constant emphasis on Is it clear? and Is it necessary? caused almost every instructor to comment upon improvement in sequence and elimination of non-essentials."
- *Robert Crawford*, Queens College (N. Y.): "One professor had an affected style of speaking, hardly conversational and hardly convincing. About halfway through the TV course he saw the light, and has been immeasurably better since then."
- *Raymond Wolf*, Purdue University: "Insistence upon all material being in my hands a week ahead of (air) time insured that the teacher was fully prepared."
- *William Dale*, University of Minnesota: "We try to impress upon the instructors that the first few minutes of any presentation are the most crucial."
- *Herb Hake*, Iowa State Teachers College: "Incisive organization of lesson content by reason of preparing a (TV) run-down sheet has proven helpful to teachers."
- *Kenneth Murr*, Pennsylvania State University: "In a psychology class, the instructor was shown a practical, feasible method of providing (short) quizzes daily over the TV system . . . Three (such) teachers are getting higher grades from TV than from regular classroom teaching."

This change of attitude resulted from many of the things done for and with the TV instructor by a producer-director. Colby Lewis of Michigan State University ably described such teacher help in an article in the January, 1959, issue of the *NAEB Journal*. Huston Smith of Washington University spelled out the value of this work to the TV teacher several years ago.

Here are supplementary findings from my mail survey:

And so it goes. The list of producer-director contributions stretches from the origin of a lesson through its production stage

before air time to a point where, now wearing the hat of a studio director, our producer-director often consummates his duties by managing the actual telecast of the lesson.

For a decade now—in the best instructional TV situations—this associate has taught teachers how to keep eye contact with student viewers by looking at the camera rather than at his notes. He has conjured up audio-visual materials which post-TV teachers frequently wish they could carry into regular classroom work. He has given courage to the teacher who was afraid before the camera, a light touch when the teacher's mood was down, discipline when the teacher preparation was halfhearted, speaking competence to some who mumbled, and an avenue of good communications to those teachers whose knowledge and personality are education's most powerful weapons.

He is realistic about the continued hesitancy of some intellectuals to embrace TV; my poll respondents estimate that only 46 per cent of the teachers in their institutions now favor extending the use of TV in teaching.

At the same time, our ITV man believes the statistics about the enrollment burden on U. S. education in the 1960's. He knows America has no chance to find enough qualified teachers to meet student needs by conventional classroom methods. He knows that TV, like a book, is a proven means of communication for the teacher.

Just as the book once helped teachers make knowledge available to the populace, he now sees TV as a tool with a sharp cutting edge, able to improve both the quality and quantity of the educational system.

His invitation to the American intellectual is, then, to come on in; the medium will be as fine as the people who participate. To say it another way, it is more constructive to act than to doubt.

Believing that the teacher and intellectual will come in, how does this ITV man look to the future? What should be his role? My respondents give varying answers here:

- *Leslie Greenhill*, Pennsylvania State University: "It is a service role in which he helps the teacher visualize and organize his instruction in such a way as to maximize potentials of television . . ."
- *William Utter*, Miami University (Ohio): "He must be not only a 'visualizer' . . . but something of a practicing psychologist as well."
- *Roger Walters*, Idaho State: "He should be able to transfer content material in any subject area into the best possible visual and aural presentation for learning."
- *Dclayne Hudspeth*, University of Chicago: "His goal is not just to help the teachers use TV but to help the teachers define and put across the ideas which they are trying to communicate . . . in as efficient a manner as possible."

- *J. David Lewis*, University of Oregon: "TV is there only to help the teacher. If you have anyone on your staff who is so full of the wonders of TV and ... his occult knowledge of show biz, send him back to directing beer commercials. Educational TV is teaching first, television second."

The Lewis caution against ego is well conceived, and all ITV people I know admit his last statement.

They do, however, see beyond the camera, the teacher, and the studio. The fascination of this work is that it makes available in modern form the accumulated wisdom of man. TV teaching should be the best a teacher can do, given the overdue aid of concerned associates. It is television second, but TV used in a way which adds a cubit to any medium which man has heretofore used to communicate knowledge.

Probably this is what keeps our ITV man away from the beer commercials, and mostly away from any false worship of the wonders of TV. Certainly the challenge of dealing daily with real ideas is what keeps him from feeling he has occult knowledge about the artificial trappings of show biz.

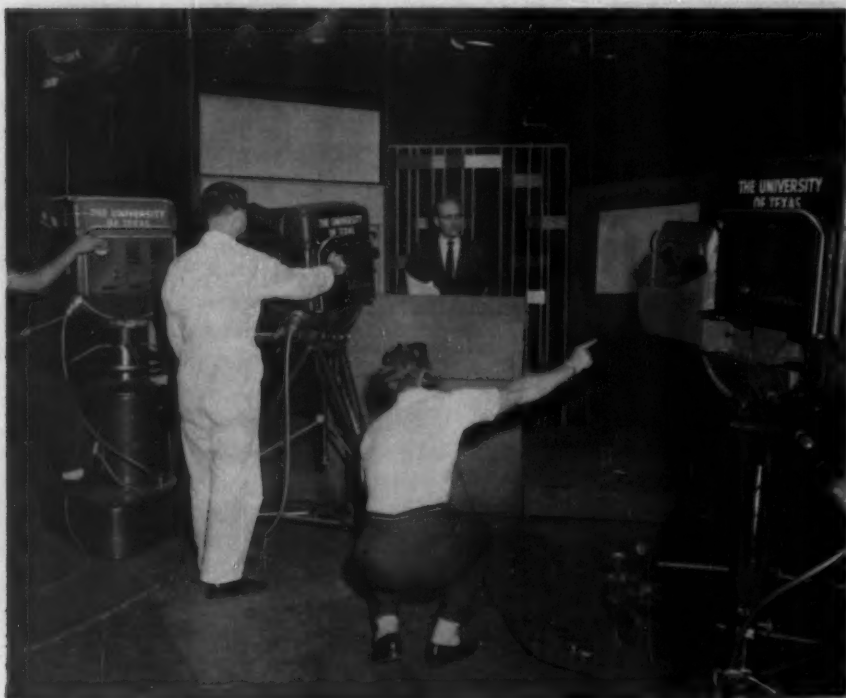
My survey respondents are clear that they belong in the studio with a teacher—laboring with the idea, shaping the word, calculating the impact, inventing the image, releasing the personality.

This is the why of our new kind of teaching associate. He is prepared to be and wants to be the closest friend of the central man in education, boosting his efforts and magnifying his results.

I have a notion, based on this survey and personal experience, that if our ITV man is used well, he might just make a contribution to the intellectual climate of America which is highly relevant.



Foreign languages taught at the University of Texas include Japanese (above, Mrs. Mieko Han, instructor of the ETV series "Spoken Japanese") and German (below, a production studio shot of Dr. Leroy Shaw and "Focus on German").



Tongues by TV

Conclusions after a survey on teaching foreign languages by tv

The tower of Babel reputedly erected the language barrier. Perhaps the tower of television can help destroy it.

I came to this happy conclusion last year after conducting a survey throughout the United States on what had been done in the recent past, what was being done at that time, and what was being planned regarding teaching foreign languages by TV. The survey was made by letter in the spring of 1959, with requests for information going to each of the educational television stations then on the air, to the National Educational Television and Radio Center, to the National Association of Educational Broadcasters, and to the Joint Council on Educational Television.

When information began to pour in, I realized that I had charged a four-alarm fire with a bucket of water. Instead of scant replies on the fifteen courses I had anticipated, I received excellent material on nearly seventy foreign-language offerings which had been on the air at some interval between 1954 and 1959. A number had been televised for a time and discontinued;

a few were in a definitely preliminary stage. All, however, provided information of value to the inquiry.

By Anne Durrum Robinson

Presently Mrs. Robinson is writing for a public relations, publicity, promotion firm. She has taught radio continuity writing at the University of Texas, written for NBC in Hollywood, and had her own TV program in Austin, Texas, over KTBC-TV.

Some of the producers of fine language programs had no time to write a summary of their experiences. There was no feasible way to obtain audience reaction except as it had been indicated to the stations or educational institutions, themselves. Consequently, I am doubly emphasizing the fact that in no sense can even the complete report on the survey be classified as scientific or exact. As was stated in the report introduction, I

was simply attempting to *pan* the field, to offer a *wide shot* of each foreign language telecourse, with *close-ups* of significant discoveries and thoughtful recommendations.

Material from respondents was organized under the following headings: language taught . . . program title and type . . . station . . . sponsoring institution . . . respondent . . . time, day, frequency of broadcast . . . length of series . . . intended audience . . . planning and preparation . . . personnel involved . . . use of auxiliary teacher . . . compensation-time ratio . . . credit given . . . methods of presentation . . . requirements made of viewer-students . . . methods of insuring viewer practice . . . supplementary materials . . . comments and recommendations.

I feel that any potential producer of a foreign-language telecourse would probably derive most benefit from a thorough study of the complete analyses of individual language programs. However, the inclusion of these has made the report so massive that to date no organization has been brave or solvent enough to undertake duplication of the entire paper. It now reposes, in all its gargantuan glory, in the NAEB office, from which it may be checked out.

Obviously only the most basic conclusions can be repeated in an article of this length. A total of 29 stations reported on their telecourses — 25 educational, 2 commercial, and 2 closed-circuit operations. On the foreign-language

courses carried by these 29 respondents, I received sufficient information to analyze 62. Here let me make it clear that the term "course" is almost as all-covering as the word "charity." Some replies called each semester's offering a course; some referred to an entire academic year's presentation as a course; some extended the term to include two years' work. More than a dozen different lengths of series were designated as "courses," so in each case I attempted to accept the respondent's designation.

FRENCH LEADS

On this basis, French was the numerical leader, with 21 courses taught. Spanish was next with 16; then Russian, 15; German, 7; Italian, 2; and Japanese, 1. Quite a number of additional courses was listed, but on the rest I was unable to secure enough material for analysis.

While some of the telecourses were "educational scatter-shot" aimed at a general audience, many were open-circuit offerings for specific targets. There were 12 open-circuit courses on the college level; 12 for a general audience; 11 for public school, elementary level; 8 for high-school level; 7 for tourists and vacationers; 6 for adults; 2 for college level, closed circuit; and 2 for in-service training for teachers. These had one each: in-school viewing (no level specified), public school (intermediate level), children (open circuit), general audience and

studio class, members of an institute, a supplement to formal courses in schools and colleges, adults and students, adults and specialists, and hosts to foreign visitors.

Only a few of the telecourses were under the banner of a single sponsor: 6 being the brain children of an educational council; 3, of an educational station; 3, of a university; 2, of county schools; 2, of university language departments; and 1, of a station education department. The remaining 45 demonstrated every possible type of sponsor-combination.

Telecast times favored the evening hours (as is often the case with educational offerings for older students and adults), with afternoons the second favorite and mornings lagging slightly behind. The most popular time (chosen by 19 telecourses) was early evening, from 6:00 to 8:00 o'clock. Mid-afternoon, from 2:00 to 4:00 o'clock, ran neck and neck with mid-evening, from 8:00 to 10:00 o'clock, each being the choice of 12 courses. Late morning, from 10:00 to 12:00 noon, was selected by 8 producers. Other telecourses were scattered rather profusely around the clock. WGBH-TV recorded its 90-minute telecourse and rebroadcast it in half-hour segments at 12:00 midnight on M-W-F, and at 8:00 p.m. on T-T-S over WGBH-FM.

Preference for 2 and 3 telecasts per week was obvious. Twenty courses were 3-a-week offerings; nineteen were 2-a-week; ten were 1-a-week; seven, 5-a-week; two,

4-a-week; one, 6-a-week; one, 8-a-week (this, of course, included review telecasts); and one, 10-a-week (including repeats).

With language experts favoring a "saturation" approach to teaching languages by the currently popular "oral-aural" method, telecourses would probably be offered more frequently per week if viewers were more likely to be available for four or five weekly telecasts.

As might be expected, the half-hour telecast for the teaching of languages is a way-out-front favorite. Many educators feel that any program shorter than thirty minutes gives inadequate time for *review*, *presentation*, and *preview*. On the other hand, they believe that only a master TV instructor can hold viewer interest in educational material for much longer.

Inasmuch as most educational television stations are closely connected with educational institutions, they tend to think of series length in terms of semesters. As one respondent said philosophically: "When semesters change, the whole schedule falls apart anyway." Comparison of series lengths indicated a heavy preponderance of one-semester and two-semester courses.

STAFF VARIES

Assumed as part of the personnel involved on every telecourse of any kind is the studio crew, which usually includes station producer, station director, cameramen, mike-boom operators, floor manager, artist, and engineers. Such a crew, of

course, varies in size and complexity with the size of the station, but the basic crew organization remains the same.

In addition to this always-present studio nucleus, the foreign-language telecourses involved 13 different personnel combinations: 31 used only a TV instructor or tele-teacher; 7, a TV instructor and musicians; 6, a TV instructor, assistants, and native voices; 4, a TV instructor and studio class. The rest employed (I use the word advisedly) a TV instructor and guests; a TV instructor and additional producer; TV instructor and additional administrative personnel; TV instructor and assistants; two TV instructors; TV instructor, actors, and skit writer; host, actors, and guest producer; instructor, consultant, and guest producer; model voice and two native speakers.

Many programs required no point-of-learning supervision because the telecourses were not given at school hours. However, where actual classes were viewing (on either open or closed circuit), some type of overseeing or assistance was usually necessary. Seventeen respondents reported the use of a regular classroom teacher as an auxiliary. In one instance, a live class of *teachers* coordinated with the telecourse being given; members of this class then acted as language club sponsors in the schools. Two used a language teacher in the viewing classroom; two found supply teachers to replace the TV instructors; two employed supervisors who were not teachers; two

used a classroom teacher for supervision with a language teacher for testing; one turned to a student teacher; one combined the classroom teacher with a "special projects" teacher; one utilized an alternating arrangement between TV teachers who taught classes during each other's telecourses. Two community groups viewing foreign-language telecourses out of school found their own supplemental instructors; natives of the countries represented by the language taught, who had become U. S. citizens.

Compensation for television instructors is as varicolored and piecemeal as Jacob's proverbial coat. Each tele-teacher works out his (or her) own arrangement with his sponsor or combination of sponsors. Payment ranges all the way from no remuneration to full-time salaries.

The question of credit for telecourses in foreign languages has many aspects. Some courses offer credit; many do not; some may be taken on either basis. In elementary and intermediate grades, the courses are usually considered "curriculum enrichment." In high schools, a course may be either a cultural bonus or entitle its viewers to high school credits. One course was offered under three choices or types of enrollment: (1) the viewer enrolled for university credit and paid the tuition fee of \$40.00 which included a viewer's guide; (2) the viewer enrolled on a non-credit basis and paid \$10.00, which fee entitled him to a viewer's guide and to confer with the instructor

during the Saturday campus sessions, as well as to use the facilities of the school's language laboratory; (3) the viewer enrolled noncredit and paid a \$2.00 fee which entitled him to a viewer's guide.

There were many different kinds of requirements for viewers who followed foreign-language TV offerings; their stringency, of course, was in direct ratio to the amount of definite credit which the viewer hoped to receive. Eleven instructors gave complete assignments (drills, exercises, readings, etc.); 29 did not indicate requirements. The remaining 22 utilized some combination of the following: requirement of proper enrollment; taking of examinations; studying of texts; taking of required quizzes; regular viewing; payment of fees; participation in oral exercises; fulfilling course prerequisites; following study guide; regular review; "feedback" with reaction sheets, calls, letters, visits to instructor, etc.; doing oral and written exercises; recording foreign-language dictation on tape; using workbooks; using recordings; doing special readings; studying reference sheets under guidance of the classroom teacher; studying grammar; meeting with instructor; taking part in classroom exercises; studying alphabet and phonetics; buying books.

Although some courses had no definite requirements as such, most instructors made suggestions to viewers to encourage effort or practice on their part. Twenty tele-teachers asked their viewers to engage in participation and repetition

during the program; 11 requested students to view regularly and review regularly; 10 wanted students to engage in pronunciation drill; 10 asked that they practice readings; 10 wanted pupils to familiarize themselves with pattern sentences; 10 urged them to listen regularly to recordings by native speakers; 9 suggested students hear lectures in the language; 9 encouraged them to work always on understanding the language without a word-for-word translation; 8 asked that viewers memorize vocabulary. Other suggestions were that students make tapes of programs for review, use workbooks, use language laboratories for drill, hold conversations with others, write in all questions not answered on telecast, study texts, use study guides, repeat ditties or stories. Over and over instructors said, "Think in the language!" "Practice!" "Form study groups!" Emphasis was placed on all types of viewer participation to help overcome the lack of direct communication between tele-teacher and viewer-student. One respondent said the best formula for getting elements of a foreign language to remain with viewer-students is to *preview-view-review* over and over for the entire telecourse!

SUPPLEMENTARY MATERIALS USED

Of special interest to institutions or individuals investigating tele-courses are the various supplementary materials used in connection with the tele-teaching. Twenty-eight instructors used study

guides; 16 required texts; 11 put out program bulletins; 6 had readers; 5, study guides for teachers only; 3, special grammars; 3, workbooks; 3, records; 2, tips for teachers. Others employed brochures on all courses, student reference sheets, school texts already used in classrooms, film strips, guides for teachers and parents, study sheets for vocabulary and phrases, review sheets, audio tapes of vocabulary, telecourse supplements, alphabet and phonetics sheets, reaction sheets, sheets for special lessons.

Charges were so varied as to be practically meaningless: 42 specified no costs; 3 charged \$1.00 for a study guide; 2, \$3.00 per study guide; others sold study guides for \$2.50, \$2.00, \$1.80 and \$0.50. One charged \$5.10 for a text; one, \$5.00; and one, \$4.45 for two texts. Tuition for credit courses ranged from \$10.00 to \$50.00.

WHO PLANS COURSE?

What enters into the planning and preparation of a foreign-language telecourse? Who initiates the idea? Who starts the ball rolling? How long does preliminary work take? Eighteen respondents indicated extensive pre-planning; 24, an average amount; 5, very little; 15 did not say. On the whole, a considerable amount of forethought was indicated by the specific course analyses. Time spent in preparation ranged all the way from one month to ten years. Some telecourses apparently got on

"b'guess and b'gosh"; a number were left largely to the discretion of the featured television teacher. But, by and large, *the more recent* telecourses are the products of much cooperative thought and effort. In fact, the "broad base of community planning and participation" was a continually emerging success factor. It brought many welcome ideas, much valuable experience and collective knowledge into the picture at a crucial early stage. It paid off in a widespread, ready-made interest when the telecourse went on the air.

In an article of this length it is impossible to do more than touch on the planning situation; the report itself goes into a great deal of detail on preparation processes. Excellent examples of complex pre-planning are found in the analyses of WTTW'S *TV College* courses; WGBH-TV's preparation for the "French Through Television" series; KUON-TV's television - and - correspondence study; and WQED's preparation for its year-long television-teaching demonstration.

Oddly enough, only a few respondents mentioned publicity and promotion of their series at all; of these, WGBH-TV had the most comprehensive description of promotional efforts.

The selection of tele-teachers was made in a number of different ways. At least three groups chose their instructors after extensive tryouts. WQED has listed nine characteristics desirable in a television teacher: "... The most important of these was considered to

be success as a classroom teacher. The least important was telegenic appearance The others were warmth of personality and pleasantness of manner, adaptability, fluency in speech and quality of voice, willingness to work without begrudging extra hours needed for daily television teaching, good health record, creative imagination and emotional maturity." Quite a bill to fill! Amazingly enough, teachers *were* found who possessed all these qualities and who presented excellent courses.

DIVIDING RESPONSIBILITIES

One important point stressed by several respondents was the necessity for early understanding about division of responsibilities. Advance general planning was usually done by a group. If an educational institution was involved, it aided the tele-teacher in establishing the *content* and *requirements* of a course.

As a rule, the station or network producer (with assistance at times from consultants or guest producers) then worked at length with the teacher to plan approach, settings, visual materials, properties, station assistance with promotion. The station also (to varying degrees) assisted the tele-teacher in learning on-camera techniques. Many teachers felt this was a most important factor in initial success of a series.

It was the producer's assignment to translate the teacher's lesson plans into scripts (to make his own run-down and/or work with a writer), to delegate studio crew

assignments, to prepare a time schedule, to assign artwork, to order construction of any devices not already part of studio equipment. Most of this sequence, of course, applies to open-circuit operations for general and in-school viewing. Open-circuit experts feel that the presentation of a telecourse differs widely from classroom presentation and requires much more planning, discipline and high-level teaching. One respondent urged that anyone turning to television as a teaching medium *explore all its possibilities and utilize all its capabilities!*

Planning continued from telecast to telecast, with teachers and producers usually *alert to need for change, adjustment, and almost constant evaluation.*

An additional facet of preparation was the production (usually by the teacher) of a study guide or whatever supplementary materials were needed. Compensation for these extra duties was extremely variable.

In at least one instance a summer pilot course was tried to determine public demand and it proved extremely valuable in many ways, relieving a great deal of production tension when the fall course got under way.

As for methods of presentation, some trends did stand out clearly enough to be mentioned. The first is that there is a growing emphasis on the oral-aural approach to teaching foreign languages, not only to children but to adults, as well. However, because this is a child's natural method of learning, the

oral-aural (learning first to speak and understand) presentation is more quickly effective for the youngsters. It is recommended that a second language be started for children in the *low* elementary grades, because even as early as the sixth grade, a child has become more self-conscious, more dependent on translation from object or idea to English and thence to the second language.

A few telecourses are still offered from a formal, academic standpoint. A comfortably large group combines oral-aural with academic, apparently with definite success. Presentation is relatively informal and conversational, but grammar is included or stressed, and there are specific requirements or suggestions for viewer effort.

STUDIO CLASSES

Several respondents indicated the use of a studio class to serve as a means of including questions and answers both ways and as a conversational setup.

Other producers were definitely against the studio class. They believe that one of TV's most potent appeals in a teaching situation is the impression left with the viewer that HE is the most important target — that the *lesson is being directed to him and him alone*. They feel that the teacher's effort to reach both types of students results in loss of "teaching focus," that a class distracts the home or school viewer and can waste valuable production time.

Concerning visuals, the consensus seems to be that teaching production is best kept simple, with visuals used only when they advance the teaching process and learning. However, the visual element should not be too soft-pedaled because television is, after all, a visual medium.

Types of visual materials are almost endless: dolls, puppets, live-actor skits and dramatic sketches, blackboards, flannel or magnetic boards, roll boards, title drums, easels, flip-cards, fill-ins, maps, charts, pictures, objects, posters, postcards, films, slides, roll downs, strip charts, diagrams, green board, tack board, Vu-graph, rear screen projection, rack with side openings, large scratch pads, enlargements of text pages, drawing pads and drawings, cartoons, stick figures.

Camera techniques add variety with supers, reveals, split-screen effects, close-ups, pans, dollies, montages, etc.

Teaching techniques include the showing of the face of the teleteacher in close-up so students may observe face, lips, tongue, and teeth in their relative positions during pronunciation; the use of music, musicians, songs, stories, dances, native voices, actors, games, conversations. There is emphasis on drill with variety; on repetition judiciously used; on the learning of vocabulary, conversational phrases and model sentences; on conversations between teacher and viewer (with time left for viewer responses); on viewer participation whenever possible; on reading and

particularly reading aloud for accent; on grammar learned by use; on pictorial and cultural aspects of the country from which the language comes.

To the surveyor's surprise, very few respondents mentioned the use of (or even acknowledged the existence of) language labs in connection with TV courses. This is very probably because most institutions with language labs keep their equipment very busy with their own use and because of the inaccessibility of the lab to the average viewer.

Perhaps the most personal approach is the combination of television and correspondence study as utilized at KUON-TV. In such a case, the correspondence study takes the place of the classroom teacher. It establishes goals, sets up units of study, provides for overview and orientation, makes assignments, includes opportunity for self-evaluation, provides for various forms of feedback. Meanwhile, the television teacher can motivate the student, provide more extensive explanation, give demonstrations, announce assignment changes, make special announcements, keep the course up to date.

How do those actively engaged in the teaching of foreign languages by TV actually feel about it? The general tenor seems to be one of cautious enthusiasm. Most of the tele-teachers, planners, producers, and educators involved in foreign-language telecourses believe in the necessity for spreading the knowledge of foreign languages to our

children and to our adult population. They sincerely accept television as a great potential teaching tool, a *supplement* if not entirely a *substitute*. Most of the discouragement and frustration in evidence appeared to be among some of those who were the earliest comers to the field.

There were comments that only highly motivated students would benefit from a formal, academic approach but that, on the other hand, too informal an atmosphere might result in stimulating interest, affording review and increasing awareness, but would do little to increase the viewer's ability to understand, speak, read, or write his new language.

Of particular interest to the surveyor was the statement by one respondent that there is a vital difference between *presenting* a language and *teaching* a language. This difference needs to be borne in mind constantly by those who plan, offer, and evaluate foreign-language telecourses.

Which brings us to the fact that some respondents emphasize that each series and each program within the series must be evaluated and planned *according to its purpose, its intended audience, and the facilities and talent available*.

Evidence of approval of progress is found in the fact that most stations and schools, colleges and universities which *begin* the teaching of foreign languages by television *continue* that teaching, many of them adding new courses each year.

There is every indication that our citizens of all ages need to be encouraged to learn at least a second language and possibly a third. There is proof by research that television can teach and a growing body of evidence that it can teach foreign languages. If our educational televisers, tele-teachers, administrators, and planners can remain open as to mind, scientific

as to attitude, creative as to approach, and limitless as to aspiration, the surveyor believes that eventually our tongues can be taught new words, our ears new sounds and our hearts new understanding. Thus it may be that the tower of television can convert the tower of Babel into a monument to international education!

Projects and Products

a column by Philip Lewis

*Director, Bureau of Instruction Materials
Board of Education, Chicago*

Packaged Talk-back System

Many closed-circuit television systems require talk-back facilities to provide immediate and adequate student-instructor communication. The CECO Standard System is adaptable to any existing or contemplated CCTV installation having from five to twenty-four distribution points.

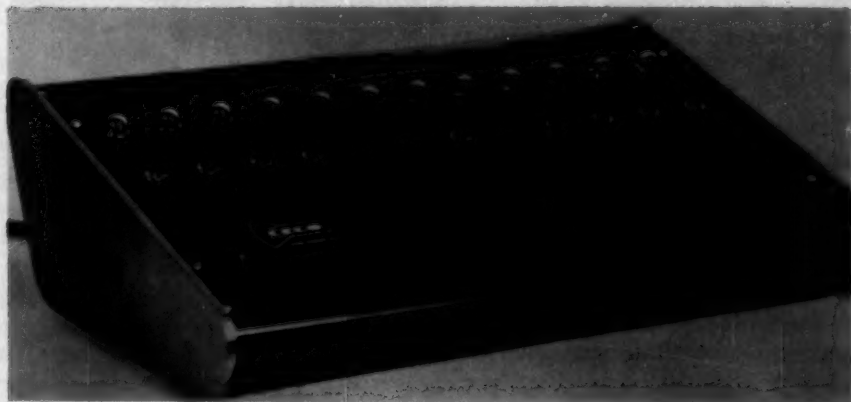
The purpose of this equipment (Figure 1) is to provide communication not only from a given classroom to the TV instructor, but to allow all other classrooms receiving the same program to monitor all questions and discussions.

The TV instructor has complete control of the system at all times and a question or discussion may

be routed over the audio system only through the manipulations of the person on camera. A further advantage is that the instructor may also monitor any classroom at any time he desires.

A student in the receiving (viewing) classroom can indicate to the instructor by signal light, as well as by audio means, that he has a question to ask or a comment to make. The instructor may acknowledge the student's query when he so desires by operating a lever switch — down for a momentary comment, up to a "hold" position for prolonged discussion, and to permit the student's question to be broadcast over the entire distribution system. All classrooms as well

Figure 1



as the instructor hear the student's question or comments, and speakers in the television sets of the classroom originating the query are silenced during the time that the lever switch is controlled. This feature prevents feedback.

When a student or room proctor indicates that a question is waiting in a particular location by throwing a switch, this illuminates a signal light on the talk-back system control console and at the same time rings a bell. The signal lamp remains lighted until the TV instructor acknowledges the call. The bell is used as a momentary audio indication. A special dual-purpose public-address-system speaker is used for receiving and transmitting students' comments in each room. This eliminates any requirement of special hand-held microphones or telephone hand sets.

The operation of this system is patterned along the lines of the talk-back installation developed for and utilized by Pennsylvania State University. Additional data is available from John E. Hines, Jr., Sales Manager, Community Engineering Corporation, P. O. Box 824, State College, Pennsylvania.

Accessories Added to the Argus TV Camera Line

Argus recently introduced a new Close-up Camera Mounting Stand designed to facilitate any close-up work such as microscopy of the scanning of a fixed area (Figure 2). This vertical mounting of the camera, which eliminates the need

for expensive prisms or mirrors, is made possible by the particle screen which protects the surface of the vidicon tube used in the TV camera. Unless it is subjected to unusually heavy jolts or vibration, the particle screen will catch any fragments within the tube before they can reach the sensitive surface.

A smooth-working elevator feature moves the camera up and down on the solidly mounted stand. If the camera is moved too close for the normal focusing range of the lenses, the extension tubes provided can be inserted between the lens and the turret, allowing one to get close enough to fill the TV screen with any object — down to a half-inch in diameter.

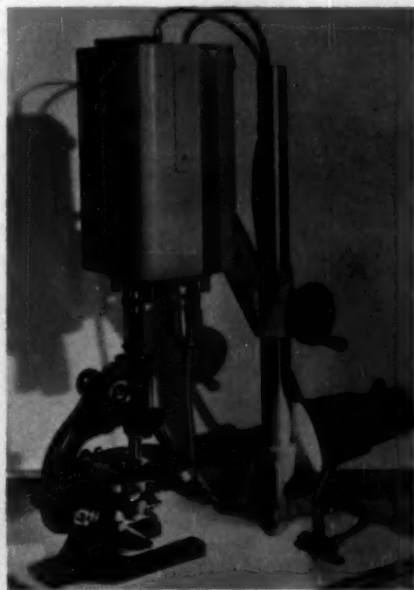


Figure 2



Figure 3

Figure 3 illustrates the adaptation of this stand for scanning graphic materials. Note that the platform is fitted with two adjustable light sources to permit pickup of images under any conditions posed by the materials involved.

The close-up stand kit is offered in three packages, any of which can be ordered separately if desired:

1. This package includes the baseboard, column with integral gear teeth, and cast aluminum camera bracket with worm gear and locking device.

2. The lighting package is composed of two lighting fixtures with brackets for mounting on baseboard or camera, 18" chrome-plated gooseneck arms with swivel

mounts, and ventilated plastic reflector shades.

3. An extension tube package includes four tubes of 5mm, 10mm, 20mm, and 40mm lengths with standard C-mount threading.

In August, a new TSI 16mm sound projector with special shuttle and shutter movements, synchronized to the 30-cycle scanning rate of the Argus television camera, was announced. Unlike most film chain projectors that project an image right on the camera pickup tube, this unit employs a low-intensity rear-projection screen (Figure 4) which can be viewed by the camera using its regular lens.

By utilizing this system, the unit is still free for normal projection duty and the camera can be employed for televising other subjects when not being used for film pickup.

Write to Robert Kreiman, Vice President, Audio-Visual Systems, Argus Cameras, Inc., Ann Arbor, Michigan, for literature concerning the products mentioned.

Improved Vidicon Tube

A small, high-quality, industrial television camera tube (Figure 5) with a minimum resolution of 600 lines was introduced by the Machlett Laboratories at the Wescon Show last August.

No alignment correction is required with the new vidicon and the novel design of the electron gun insures good alignment of the beam without auxiliary alignment, correcting coils, or magnets. Other

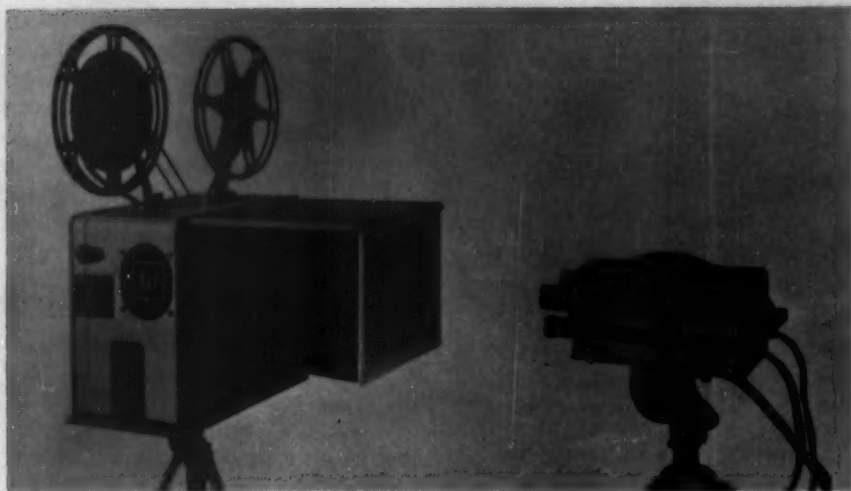
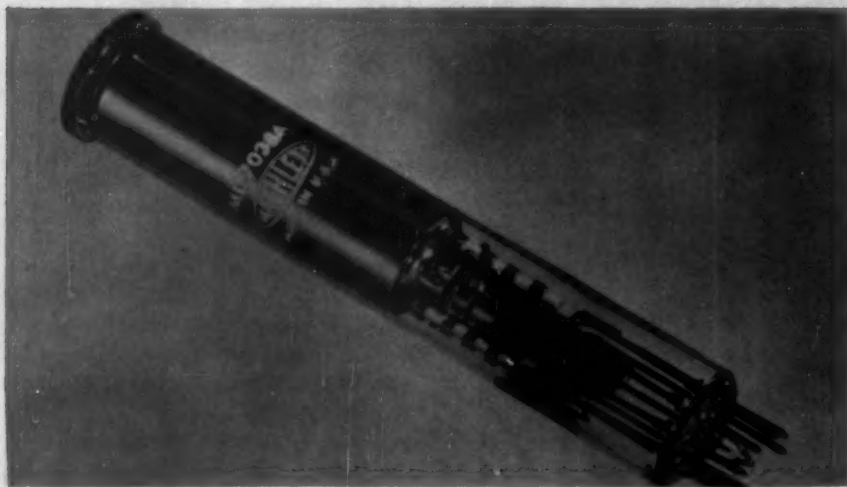


Figure 4

novel features include an extremely flat faceplate free from optical distortion and an over-all rugged tube which can be operated in any position. In addition, the tube exhibits higher sensitivity because it

will operate at higher levels of dark current than are obtainable with previous types of vidicons. Full particulars on this ML-7038A tube are available from the Machlett Laboratories, Springdale, Connecticut.

Figure 5



NAEB

Research

Fact

Sheets

Series I: The Effectiveness of Television as a Teaching Tool

86. Experimental Study in Instructional Procedures

By F. Glenn Macomber and Laurence Siegel, Miami University (Ohio), January, 1960. 96 pages. (Project under grant from the Fund for the Advancement of Education.)

(Two interim reports on this project have been reviewed previously in the Fact Sheets—Series I, Numbers 21 and 34.)

The major purpose of the study was to determine the relative effectiveness of large and small group instruction at the college level. The conclusion at the end of the 3½-year experiment was that large group instruction including TV was, with few exceptions, as effective as small group (conventional) instruction.

It was thought that those instances in which students in the experimental sections achieved either significantly more or significantly less than the students in the

control sections were probably attributable to specific features related to course content or the instructor's technique rather than to large group instruction itself.

Student attitudes did not always correspond with actual student achievement. Students in the TV and in the large nontelevised sections tended to rate course content somewhat less favorably than did students in the smaller classes taking the same courses. Students also thought that the experimental classes reduced the instructor's effectiveness. However, student motivation and interest in the subject matter was not affected adversely when the student was assigned to one of the experimental classes.

Students tended to prefer small classes to both the large classes and the TV classes. It was a rare combination of instructor, course material, and the use of TV which produced a reaction whereby the students actually preferred TV to conventional instruction.

There was some indication that low-ability students liked TV instruction better than did high-ability students. This was not a general reaction, however.

There was no evidence that students in TV courses became progressively disenchanted with the medium.

Most students said they would enroll in a TV class in a large class if they could be assured of having an excellent teacher. This was true even though they preferred small classes.

Negative results were obtained when certain personality variables were compared with student attitudes toward large classes or TV classes.

Student attitudes did not materially affect their subject matter achievement. It was considered that motivation from a variety of other sources was sufficient to overcome any negative reactions to large classes or TV classes.

FACULTY

The teachers involved seemed keenly interested and summer workshops and seminars were well attended and productive. It was found that generally college professors make inadequate use of

audio-visual aids to instruction. Largely this must be owing to lack of know-how in securing and using them, because in this study such use increased greatly when audio-visual materials and equipment were made readily available and technical assistance was provided for those instructors unfamiliar with the use of overhead projectors, tape recorders, microprojectors, and other aids. When services for the production of graphics were added, there was a startling increase in requests for maps, graphs, charts, and transparencies for the overhead projector.

Almost all the instructors in the study who tried TV teaching liked it better than they thought they would. Most felt TV classes were preferable to other large class instruction, but most still preferred small classes. The physical barrier between student and teacher and the lengthy preparation time were given as the major defects in TV teaching.

The report describes the reaction of those teachers who did not try TV teaching as "moderately favorable." About one-third of this group seemed willing to teach a TV course, a third was unwilling, and a third undecided. The teachers who had not taught on TV considered nontelevised large classes as preferable to TV classes. This is a reversal of the opinion of those teachers who had actually taught a TV class.

Some teachers had certain fears regarding TV — the possibilities of technological unemployment, inadequate royalty arrangements, and

the possibility of a star or master-teacher system.

As to work load, the evidence indicated that a CCTV course was the equivalent of about $2\frac{1}{2}$ conventional classes, while each open-circuit TV course with off-campus enrollment was equal to about 4 conventional classes.

FACILITIES

Because equipment and production costs are high, it was obvious that televised teaching was feasible only for courses of fairly large enrollment. The break-even point at Miami University was determined to be between 250 and 300 students enrolled in a given course at a given time. However, this was before videotape entered the picture in a big way, and it is recognized in the report that tape use will make a decided difference.

The report states that the greatest handicap to large group teaching other than the lecture method is probably the lack of rooms planned for TV use. The best type of room was found to be one with U-shaped seating arrangement, high-quality swivel seats which allow the student to face a speaker in any part of the room, air conditioning, good provision for use of visuals, and with a raised platform arrangement progressing from front to rear.

Another handicap mentioned is the lack of receiving sets of adequate screen size and of the picture quality needed for class viewing. The report states that research is needed to identify such classroom needs so that manufacturers may develop the proper type of set.



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Research
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Series I: The Effectiveness of Television as a Teaching Tool

87. An Investigation of Closed-Circuit Television for Teaching University Courses. Instructional Television Research Report Number Two: The Academic Years 1955-1956 and 1954-1957.

By C. R. Carpenter and L. P. Greenhill in collaboration with W. F. Christoffers, F. R. Hartman, J. D. Hundleby, L. F. Kepler, J. A. Murnin, H. C. Peters, W. S. Ray, H. D. Sherb, and L. E. Stover, University Park, Pa.: The Pennsylvania State University, Spring, 1958. 110 pages. (Project sponsored by the Fund for the Advancement of Education.)

[Editor's Note: While this is not a new report, it has not been digested previously in the Fact Sheets. Report Number One was issued as Series I, No. 15.]

This is the second in a planned series of three reports. It deals with investigations into four "general areas of research on the use of closed-circuit television."

COMPARATIVE EFFECTIVENESS

"Problems in this area include studies of the relative effectiveness of conventional instruction and the same instruction presented over closed-circuit television." Seven

experiments in comparisons of direct and televised instruction are reported on. The general conclusion reached:

Controlled experiments which compare direct and televised instruction with the same teachers teaching the comparison groups are unlikely to yield statistically significant differences in students' achievement scores when the courses, teachers, and students are similar to those in the Penn State experiments.

Under this same heading, additional studies were made. Two experiments on student distance from the source of instruction (teacher or TV set) were conducted: "No

relations were found between distance from instructional source . . . and students' examination scores."

Experiments were conducted with size of the class in TV classrooms as the variable in five courses: "In the tests given in all of these courses, with the exception of one test in Music Appreciation, no significant differences in test scores were found among the varied TV class sizes."

Also studied for their effects on achievement were variations in the composition of TV classes, different kinds and amounts of TV class supervision, rotating students through TV and direct instruction, different ways of providing opportunities for discussion and question-and-answer exchanges, different kinds of out-of-class independent study opportunities and activities which supplement TV instruction, and variations in TV presentations.

The following results were noted in these investigations:

- Controlled variations in the composition of TV classes for the course Psychology of Marriage made no differences in the measured achievements.

- There is no evidence for the need and justification of providing proctors for college students in a General Psychology course when the role of the proctor is merely that of "keeping order," being present, and recording attendance.

- No differences either in achievement scores or reactions to variations in the statuses of proctors.

- Measures of achievement

showed no statistical differences when students were rotated into and out of the TV originating room.

- Students strongly preferred to participate in live discussions held in classrooms rather than listening to and observing discussion on TV between the instructor and students in the originating room. There were no significant differences in achievement.

- Significant differences between those who attended optional problem-solving sessions and those who did not were shown on the *problem-solving parts* of the test. Those who were required to attend the discussion problem-solving sessions made significantly higher scores.

- In a course in Air Science a comparison was made between a teacher using the traditional lecture-blackboard method via TV and a team using lectures plus many TV visuals. The difference on achievement tests favored the lecture-blackboard presentation by .90 points. The difference is significant and is in the reverse direction from the expected result.

- Extensive adaptations of instruction with use of many teaching materials and methods may not improve students' scores on examinations.

- It seems highly probable that students need to learn how to learn from new and different methods and materials. [Cf. New York University's Second Report, to appear in a future Fact Sheet.]

- A similar comparison was made in General Psychology: No

significant differences were found in achievement test scores of students taught by television under the two conditions of adapted and conventional instruction.

An Introductory Sociology course was used to compare the effect on "Students' Course-Related Attitudes" of direct and television instruction: "... the direct and TV presentations ... had comparable effects on attitudes of students as measured by the Inventory of Beliefs."

APPROPRIATENESS

Under this heading are grouped questions related to whether or not TV should be used for certain courses at all, whether it should be used in conjunction with other kinds of teaching in some courses, which courses should be especially adapted for TV presentation, and "for whom is instructional television appropriate, suitable, and adequate?" The last phrase refers to students, not just to instructors.

This section of the report describes "a wide range of uses of closed-circuit television in a university" and reviews "efforts to adapt courses and television each to the other."

"This work demonstrates and suggests possibilities for using instructional television under a great variety of conditions and for many purposes. Also the fact is emphasized that the problems of making adaptations are many and some are difficult.

"Adequate quantitative criteria are not available for determining

the degree of appropriateness of television for teachers and students as well as for courses, specific educational functions, and physical plant conditions. The conclusion that television is appropriate for many educational functions is based mainly on experience and judgment.

"It is also clear that by means of many kinds of adaptations the appropriateness factor can be improved."

This section of the report includes a description of the physical arrangements for permitting question-and-answer exchanges between a TV instructor and the students in the TV classrooms.

ACCEPTABILITY

Under this heading are detailed studies of the acceptance of TVI by faculty members and students.

Systematic surveys of Penn State faculty attitudes were made during the first two years (1955-1956 and 1956-1957) of the program. In both years samples of over 200 were drawn from the faculty, excluding administrators and all personnel involved with the television studies. The results "seem to indicate a gradual slow rate of change in attitudes of faculty members, (a) toward a recognition that closed-circuit television has a justifiable place in a large university, (b) toward recognition of both the advantages and the limitations of instructional television and hence, (c) toward tentative acceptance of procedures for

using TV appropriately as an instrument of instruction in large multiple-section classes. A need for more information to serve as a basis for sound judgments and attitudes of the faculty was indicated."

A separate survey was made of instructors active in the TV program. The following general observations were made:

Within the groups of faculty members who have taught over television there was considerable variability of reactions and attitudes toward the operation. For descriptive purposes these teachers may be classified into several categories:

Category 1. *The highly motivated and intensely involved instructors* fully committed to televised instruction.

Category 2. *The conditionally committed instructors*, who accepted the increased demands made on them provided there were compensating personal advantages.

Category 3. *The passively committed instructors*, who taught some large classes for presentation over television. They did not take the initiative for changes, improvements, and adaptations either of their courses or of television procedures.

Category 4. *The uncommitted instructors* who, for different reasons, adopted television as a temporary arrangement. Some became defensive and were unfavorably aggressive about television, resisted adaptations, did not adjust personally. They did not long survive the rigors of instructional television.

For testing students' attitudes toward TVI, the investigators developed a "behavioral choice" procedure in which students were given periods of both direct and televised instruction in the same course by the same instructor and were then required to choose between TV and direct instruction for the remainder of the semester.

The following observations on the results are made in the report:

A review of the results shows that acceptance of instructional television by students varies with a number of factors. Some of these are:

1. Size of class and classroom.
2. Distance of assigned seats from lecturer and demonstrations.
3. The general methods of teaching.
4. The personality of the teacher.
5. Quality and adequacy of video and sound presentations.
6. Classroom atmosphere.
7. Content of the course.

Finally, for the courses studied, the differences between direct and televised instruction as perceived by Penn State students are not great enough to result in very strong negative or positive action for either procedure.

Results of regular attitude surveys of students included the following:

- There has been a gradual average change to a somewhat higher level of acceptance since 1954-1955.

● Students seemed to be much less concerned or aware of television *per se* in 1956-1957 than they were in the spring of 1954-1955.

● A gradual but pervasive opinion is developing among students that when they take TV courses they have a good chance of getting the best instructor(s) that a department can provide.

Observation of students' reactions during registration produced this comment: "The hour when the section is scheduled seems to weigh more heavily in the students' choice of sections than whether the teaching is given directly or by television."

FEASIBILITY

This section of the report deals with "the practical considerations of teaching by television." The following summary concludes the section:

"In this section of the report observations and evidence have been presented to support the conclusion that the use of vidicon television systems (as compared with commercial image orthicon systems) for instructional purposes is feasible in a university The relative advantages and disadvantages of video and radio frequency distribution systems were reviewed. It has been shown to be practical

to install, maintain, and operate vidicon closed-circuit operations with personnel normally available in a university Research can be coordinated with the regular and almost full-time televising of courses of instruction. A detailed cost analysis has been given for four courses The potential of economic gain increases with the number of students served in TV sections but the same rate of gain does not accrue with conventional teaching procedures. Several important policy considerations were raised relative to costs, the quantity and quality of instruction and educational productivity."

This section of the report contains numerous practical suggestions and observations.

Courses of instruction utilized in the studies reported on included Air Science (ROTC), General Chemistry, Elementary Business Law, General Psychology, Psychology of Marriage, Principles of Economics, Music Appreciation, Introduction to Education, Speech, Elementary Accounting, Introductory Political Science, Introductory Sociology, Introductory Electrical Engineering, Elementary German, Elementary Meteorology, Intermediate French, Advanced French, Introductory Engineering, Audio-Visual Aids, Introductory Industrial Engineering, and Metallurgy.

—WALTER P. SHEPPARD

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Research
For
Students

Series IV: Audience Studies

35. Deception in Television: The Standards of a State University Staff

By Elmer G. Sulzer and George C. Johnson, Indiana University, February, 1960. 19 pages.

A questionnaire concerning moral deception in broadcasting was circulated to the teaching and executive staff of Indiana University. Returns numbered 518. As a check on the opinions of the university staff, completed questionnaires were obtained also from 109 non-broadcasting majors at the university, 42 broadcasting majors, and 91 townspeople (through the Rotary Club and an adult church group.)

Scattered among the 20 statements on the questionnaire were some of great naiveté, such as: "The ark used in the television version of 'Green Pastures' was not the one used by Noah" and "There are no bullets in the revolver shells that are fired on the Westerns." As stated in the report, the ark question was to serve as a "shocker" to stimulate thoughtful discrimination with regard to the other statements. As also mentioned

in the report, it was a "shocker" to find that some respondents (4% of the townspeople and 1% of the nonbroadcasting majors) actually considered this a moral wrong. As to the use of blanks instead of real bullets in Westerns, 1% of the university staff, 7% of the townspeople, and 1% of the non-broadcasting majors thought this was wrong. These answers, plus some of the comments ("Okay if Noah refused permission to use his ark" and "In some cases real bullets would be most desirable"), might lead one to suspect somewhat the seriousness with which respondents looked upon these and other statements in the questionnaire.

However, the other statements were of a more serious nature and represented different types of deception, from rather obvious photographic and technical devices which

might be mildly deceptive, to deceptive advertising and the deception involved when a speaker delivers as his a speech written by someone else.

Perhaps because of the recent newspaper coverage, the rigging of quiz shows and the acceptance of payola by disk jockeys were voted morally wrong far more often than the other forms of deception—83% of the combined groups. This is twice as high as the percentage (41%) who voted deceptive advertising morally wrong.

While in general the students were less apt to label the various practices as moral wrongs than were the university staff and the townspeople, there was a marked reversal in response to the statement, "Most of the televised speeches delivered by our last two presidents were written by ghost writers." Of the university staff members, only 15% thought this morally wrong, while 29% of the radio-TV majors thought it wrong, 25% of the nonbroadcasting majors, and 16% of the townspeople.

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